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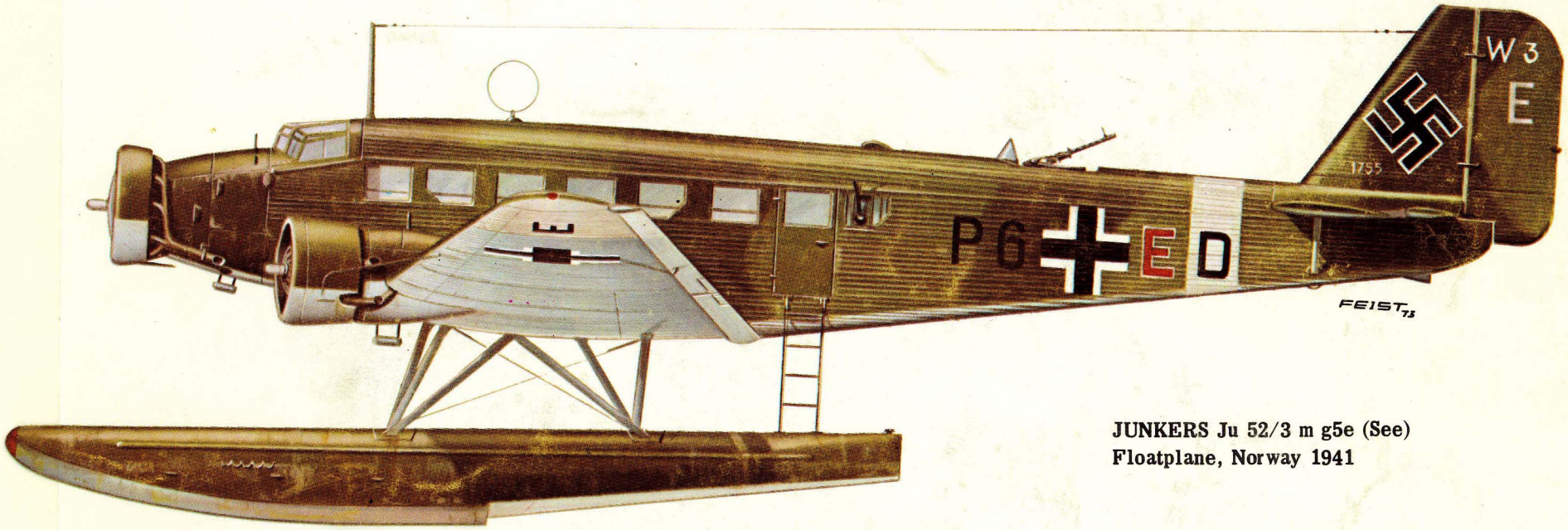
JUNKERS Ju 52

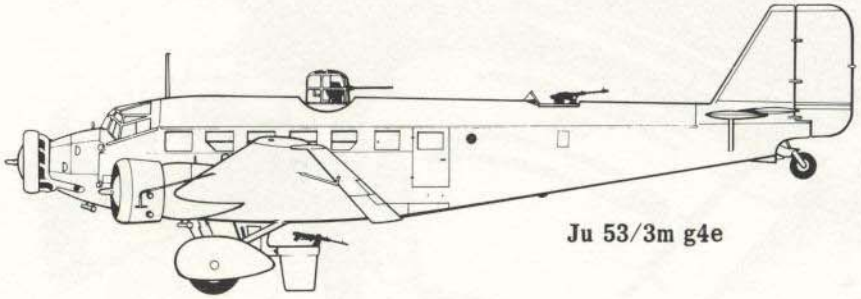
IN ACTION



JUNKERS Ju 52/3 m g5e (See)
Floatplane, Norway 1941

squadron/signal publications
AIRCRAFT NO. TEN $3.95

JUNKERS Ju 52
in Action



Ju 53/3m g4e

Created by Uwe Feist
Captions by Mike Dario

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3515 E. TEN MILE ROAD, WARREN, MICHIGAN 48091

In her original role as a passenger plane, this **Junkers Ju 52/3m g3e Werk Nr. 4074** of the DEUTSCHE LUFTHANSA was powered by three 660 hp. BMW 132 A-1 aircooled engines, accomodating a crew of three and seventeen passengers.

PHOTO CREDITS:
Bundesarchiv Koblenz
Helmut Roosenboom
James V. Crow
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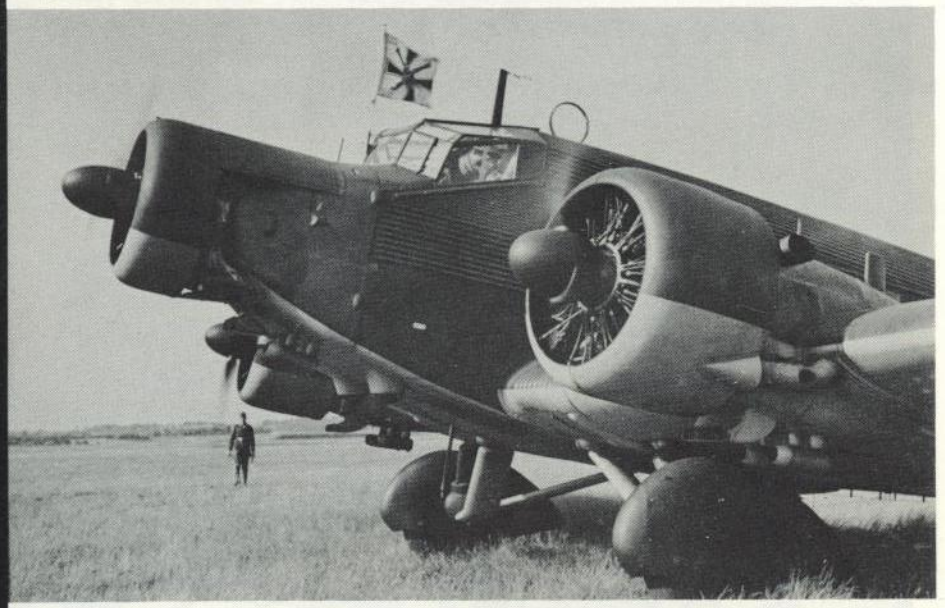
JUNKERS Ju 52

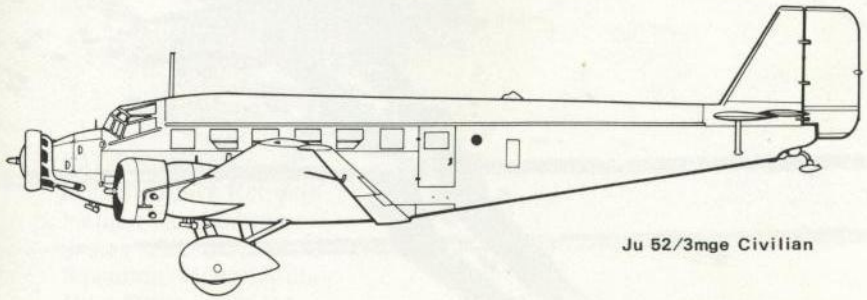
The **Ju 52/3M** began life in 1930 when a new low winged single-engined passenger/cargo airplane bearing the **Junkers** trademark of external corrugated aluminum skinning was wheeled out of the factory hanger for taxying tests. Flying for the first time on October 13, 1930, powered by one 800 h.p. **Junkers L.88** engine, the design was an immediate success. For nearly a year the single engined Ju 52 was built and tested with various powerplants and several were exported - one to Canada and one to Sweden.

With a pedigree that reached back to 1919 the Junker's Ju 52 was the end result of a progressive development of a line of all metal transport aircraft initiated by the Junkers Aircraft company in 1919. The **"Tante Ju"** (Auntie Ju) or "Iron Annie" as it was affectionately known by, has soldiered in the air for over forty years and still continues to fly today. Junker Ju 52/3m's have served with the air fleets of many nations in the past and at least four countries — Sweden, Portugal, Spain and Switzerland still operate them.

In 1931 Dipl. Ing. Zindel, Junker's chief designer, developed the three engined Ju 52/3m as a successor to the single engined Ju 52. The earliest known Ju 52/3m, Werke Nr. 4008, was delivered to Lloyd Aero Boliviano in 1932. Six additional aircraft were delivered to the Bolivian airline and during the Bolivian - Paraguayan dispute of 1932 - 35 they were used as military transports - the first known use of the Ju 52/3m in its destined role.



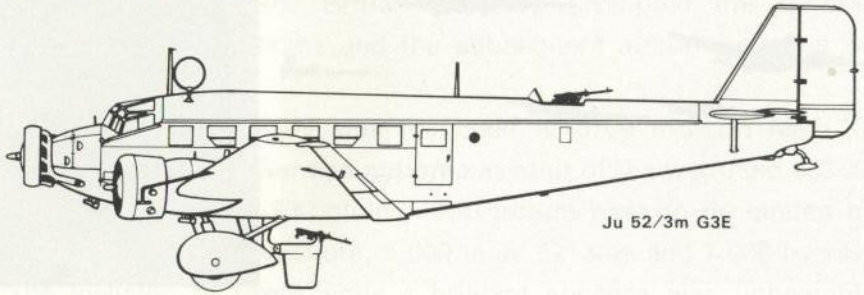
Flying a Fieldmarshal pennant, this **Ju 52** is specially modified to lower air drag in order to increase the cruising speed. Propeller spinners, wheel spats, engine cowling, and the fared exhaust pipes protruding below the cockpit are other visual changes to this aircraft in order to increase speed.



Ju 52/3mge Civilian

The Ju 52/3mge was powered by a license-manufactured Hornet Radial, BMW 132 A-1 rated at 660 h.p. and accomodated a crew of three carrying 17 passengers and reaching a maximum speed of 180 m.p.h. Commercial orders came pouring in but before these could be begun to be delivered Junkers received orders to adapt the transport as an auxiliary bomber for the still secret **Luftwaffe.**

The Ju 52/3mge bomber was to be temporary equipment being replaced by the Do 11 as soon as quantities of these new bombers became available. However, difficulties in "debugging" the new Dornier bomber led the clandestine Luftwaffe bomber gruppen to depend more and more upon the untroubled Ju 52/3mge bomber production. In 1935 the initial bomber variant was succeeded by the Ju 52/3mg3e powered by three 725 h.p. BMW 132A-3 engines and featuring improved radio equipment and bomb release mechanism.



Ju 52/3m G3E

The Ju 52/3mg3e was a relatively simple adaptation of the transport aircraft. An open dorsal position mounting a single 7.9mm Mg 15 machine gun and a semi-retractable dustbin also mounting a MG 15 was hinged to a glazed fairing containing the bomb aiming position. The three bombays, two ahead of the fairing and one behind the fairing could carry ten 110 lb. or two 250 lb. bombs, maximum bomb load being 3,306 lb. The aircraft was readily convertible back to the transport role. The Luftwaffe accepted delivery of 450 Ju 52/3mges during 1934 and 1935 but made little use of them in the bomber role except in training future bomber crews. When the Spanish Civil War broke out twenty Ju 52/3mg3es were dispatched to Spain to support General Franco's revolutionary faction. These were sent immediately to Spanish Morocco to join a unit of Italian SM 81s' already ferrying Moorish troops from Morocco to Spain which undoubtly saved the Nationalist cause. In November 1936 the Condor Legion was formed containing three Staffeln of Ju 52/3mg3es. The Condor Legion was made up of "volunteer" Luftwaffe personnel and aircraft wearing Spanish Nationalist uniforms and insignias. To distinguish Nationalist machines from those of the Condor Legion, the former carried a St. Andrew's Cross superimposed on the black disc marking on the fuselage sides.

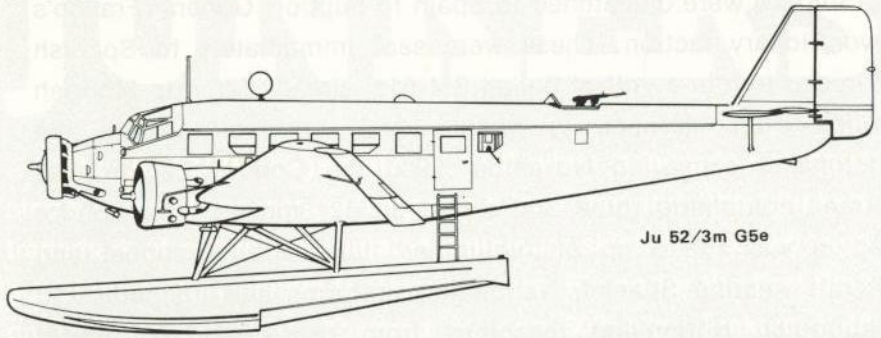
Spanish Nationalist Air Force

Legion Condor

The Condor Legions' Ju 52/3m bombers were soon replaced by the Do 17E-1 and He 111B-1, the Ju 52/3ms were turned over to the Nationalist Air Force with whom they had a formidable reputation and gained the affectionate name "Pava" (turkey). Whenever Nationalist troops were in action the Ju 52/3m was seen overhead as either bombers or transport, flying their last mission on March 26, 1939 bombing targets at Belmez.

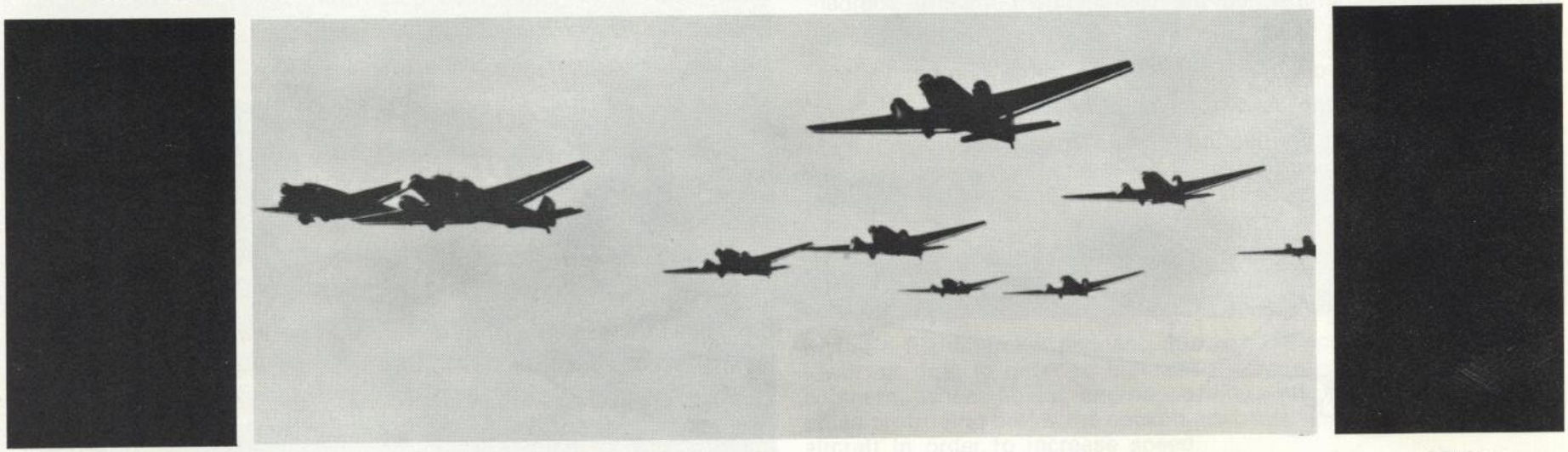
In 1935 the Ju 52/3mg3e was superseded by the g4e with a strengthened undercarriage permitting a weight increase from 20,950 lbs. to 23,150 lbs. The ventral "dustbin" deleted, the g4e was used almost exclusively in the transport role. The Ju 52/3m g5e was fitted with the more powerful 830 h.p. BMW 132 T radial engines, contained de-icing equipment and could operate with

either wheels, floats or skis. The Ju 52/3m Floatplanes were used to land mountain troops in several Norwegian Fjords when it would have been impossible to use land planes or paratroopers. The g6e, produced in parallel with the g5e, contained simplified radio equipment intended solely for land based operations. Quite a few of the g6e aircraft were later modified to Ju 52/3m g6e (MS) for mine sweeping operations during 1940-42 off the coast of France and in the Mediterranean. The Ju 52/3m g7e was to become the main production version, purely a transport aircraft it was capable of carrying 18 fully equipped troops or 12 stretchers. An improved g5e it had an automatic pilot, larger cabin doors, standardized defensive armament of one 13mm MG 131 machine-gun in the dorsal position and two 7.9mm MG 15 machine-guns firing through side windows.



Ju 52/3m G5e

When the Austrian Anschluss of March 1938 took place the Ju 52/3m was able to play a prominent role in the Luftwaffe's "show of strength" and as a transport ferrying troops and supplies. In September, 1939 when Germany invaded Poland four Gruppen of KGzbV1 poised on airfields waiting to transport paratroop units for a surprise airborne attack against positions in Poland. And while these operations never took place they were a prelude to the airborne attacks on Denmark and Norway. The Ju 52/3m was relegated to the transport role supporting the Wehrmacht and Luftwaffe units from advanced bases. Nine Transportgruppen were in use almost constantly with a loss of only 12 aircraft due to operations. Under the code name **"Unternehmen Weserubung"** the invasion of Norway and Denmark began at dawn on April 9, 1940 when the nearly 600 Ju 52/3ms assigned to the attack began ferrying assault troops and paratroopers to their objectives. During the campaign in Norway some 3,000 sorties were flown carrying



nearly 30,000 men, 2,376 tons of supplies, over 250,000 Imp. gals. of aviation fuel for a loss of 150 aircraft.

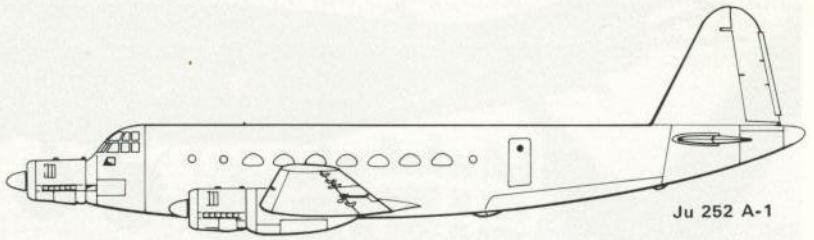
Next came the invasion of the Low Countries to which 430 Ju 52/3m transports were committed. While most of the objectives were taken, stiff Dutch resistance was encountered and the transport formations suffered a 40 percent loss. The Battle of France caused normal wear and tear on the Ju 52/3m formations but the years production more than replaced both those lost in France and the Low Countries.

When the Italian High Command requested the Luftwaffe to provide an airlift for its hard-pressed forces in Albania, 53 aircraft of III/KGzbV1 flew 4,028 missions, ferrying some 30,000 troops and 4,700 tons of supplies to Albania during a 50 day period without losing a single aircraft. The Italian failure in the Balkans and Greece plus the British build up prompted the German invasion of the Balkans and the subsequent airborne assault on Crete.

Operation Mercury was launched at 0700 hrs. on May 20, 1941. The greatest **German airborne** assault of the war used 493 Ju 52/3m and 80 DFS 230 gliders. 750 troops were to be landed by glider, 10,000 by parachute, 5,000 in Ju 52/3ms and 7,000 by sea. The Invasion of Crete while a brilliant success was unbearably costly. Losing 4,500 German troops and 170 transport aircraft Crete was the last full scale airborn assault by German troops.

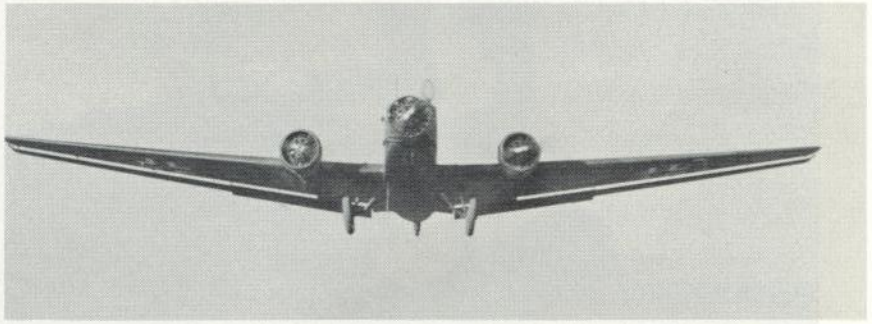
When Germany invaded Russia on June 22, 1941 the vast spaces alone meant the Ju 52/3ms would be called upon to perform extraordinary feats of supply, the most famous of which was to try to keep encircled 6 Armee at Stalingrad supplied.

At the same time as the first reversals were going on in Russia tremendous airborne supply demands were being made from North Africa.

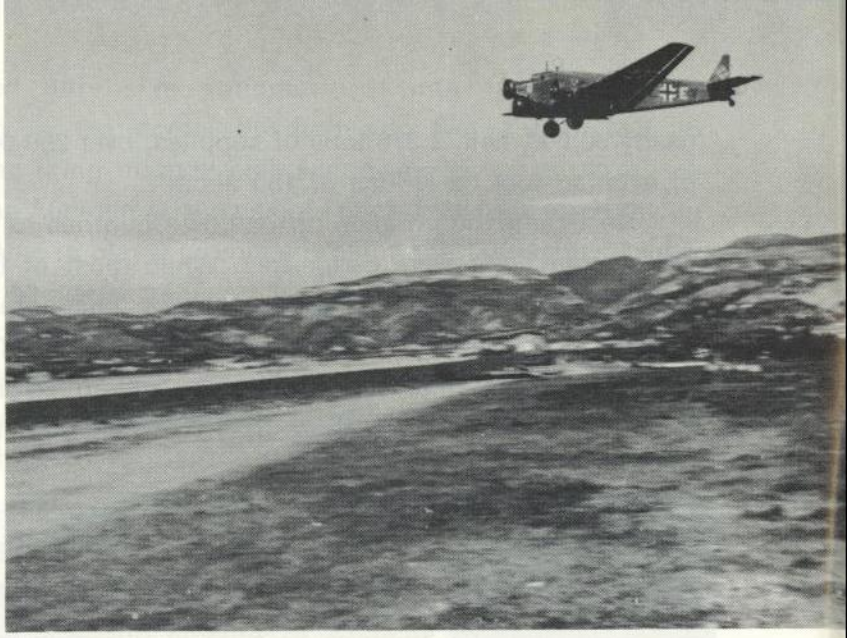


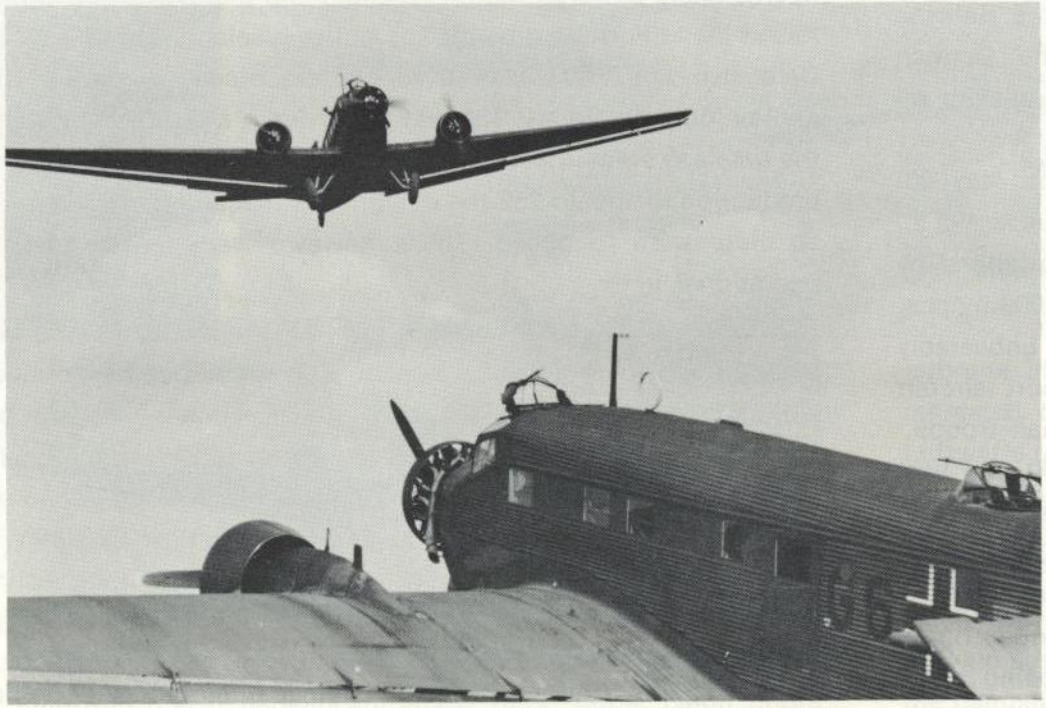
The Ju 52/3m was obsolescent at the beginning of WW II and had soldiered on long past her time. In 1938 a series of design studies was undertaken and in July of 1939 designs were submitted that met with approval.

Allocated the designation of Ju 252 the new design had only the trimotor arrangement in common with the Ju 52/3m. It was powered by three Junkers Jumo 211F engines. Loading was by a hydraulically powered ventral loading ramp that when fully lowered raised the tail off the ground. The entire fuselage was pressurized. Defensive armament was a single electrically operated turret containing a single MG 131 and two 7.9mm MG 15s' mounted on the fuselage sides. Because of criticalness of war material used in production of the Ju 252 the design was discarded after less than 15 units were produced. These however were well received by operational units.



Showing to advantage her fixed landing gear and three **BMW 132** radial engines, notice also the "Flying Ailerons" and partially extended flaps of **"Iron Annie"** in her landing configuration.



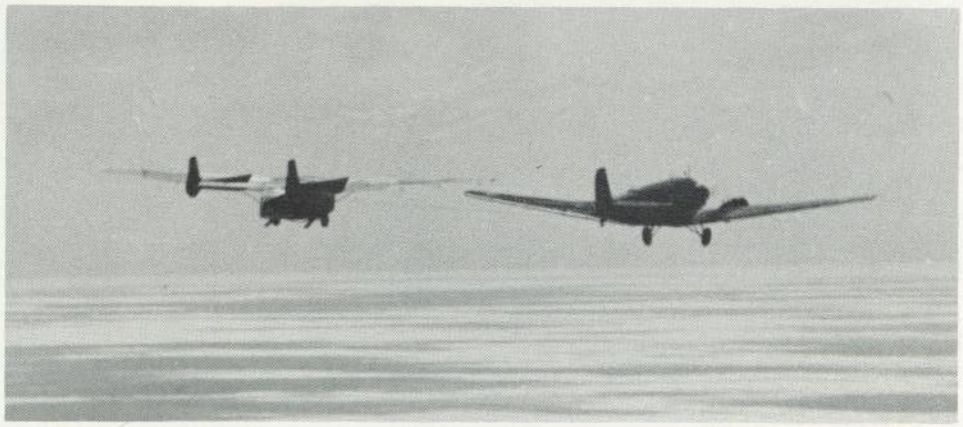


On the final approach to the landing strip, this white-ruddered **Ju 52** of KGzbV1 bears the code letters **1Z + EV** and the coat of arms of the city of Berlin. All aircraft of KGzbV1 wore the **Berlin Bear** and aircraft of each squadron in the wing were distinguished by a different background color on the coat of arms.

(Above left) A low flying **Ju 52/3 mg** photographed from the waist machine gun station of a companion ship as the flight from III Gruppe KGzbV1 sweeps low over the arid Tunisian Desert before crossing the Mediterranean Sea on their way back to Sicily in early 1942.

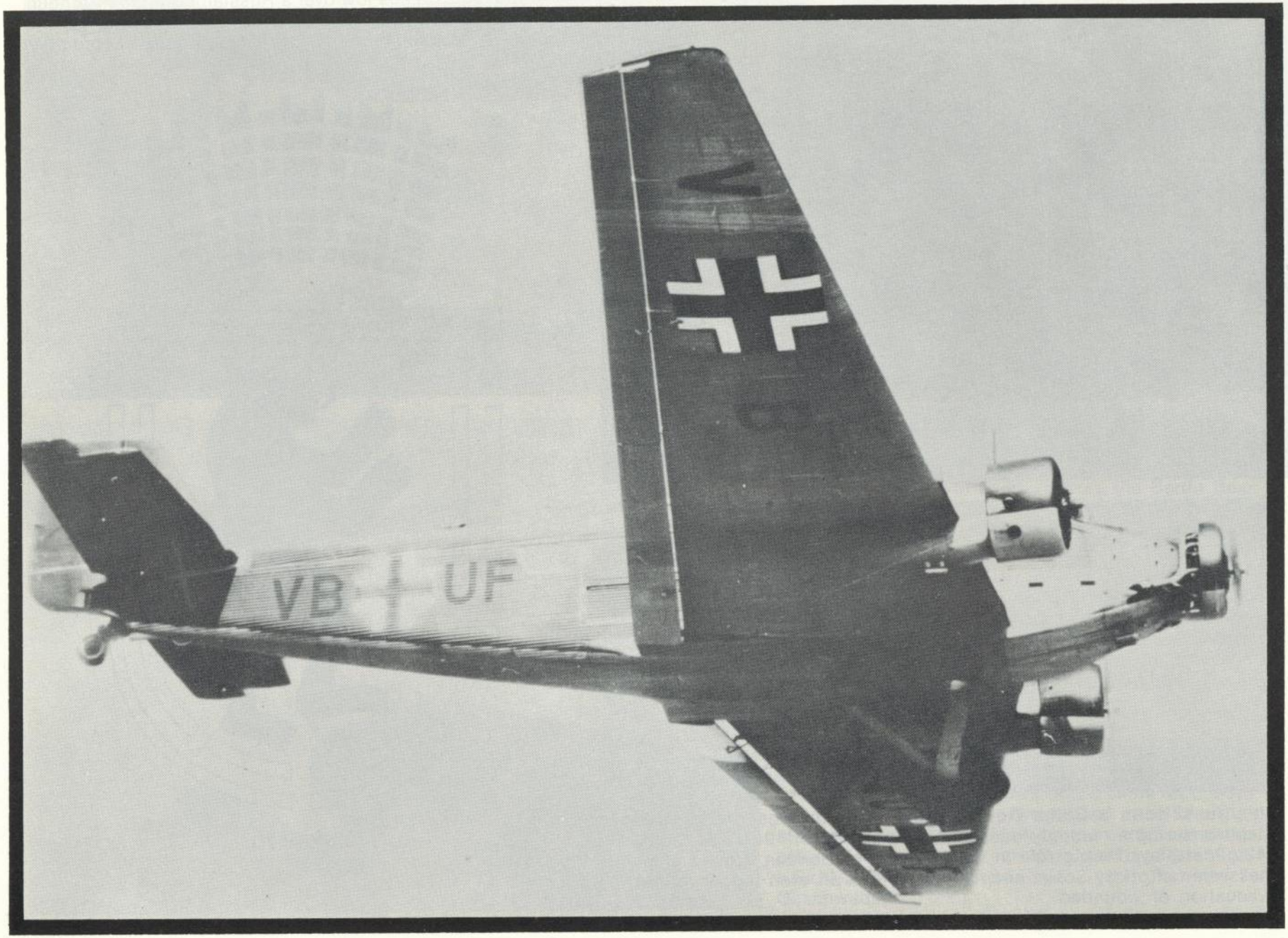
With a noise like twenty motorcycles at full bore, this **Ju 52/3 mg 7e** of KGzbV2 strains for altitude as she flies over a sister aircraft of the same unit. Both aircraft are fitted with two dorsal machine gun stations — one directly behind the cockpit and the other toward the rear of the fuselage. In 1943, KGzbV2 was incorporated into Transport-Geschwader 2.

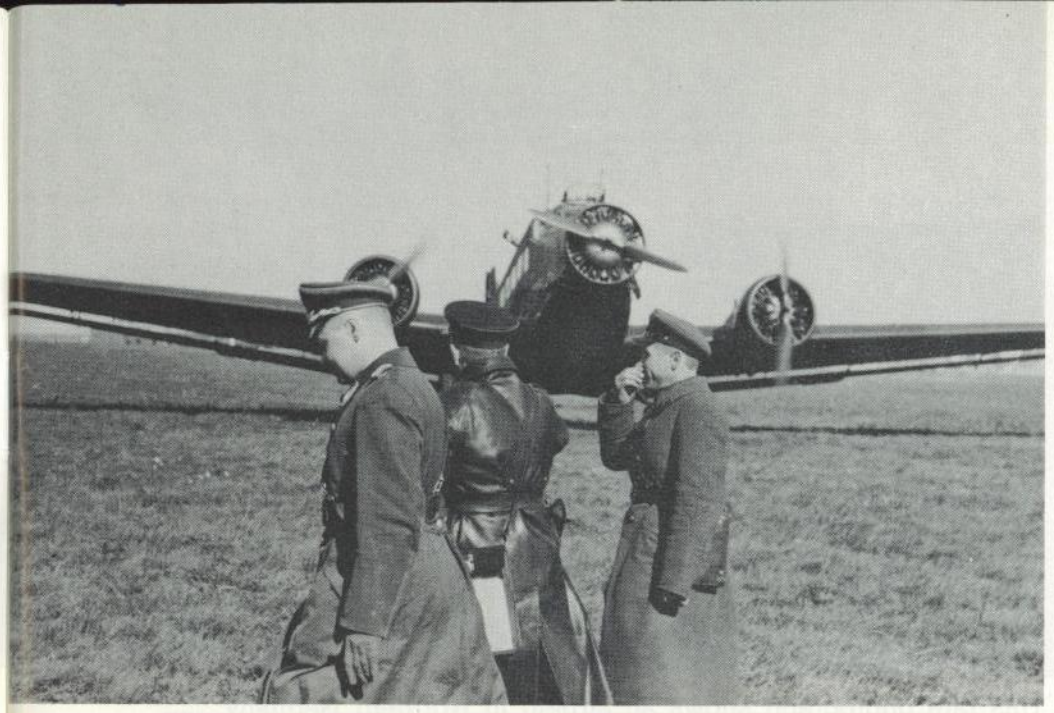
A **"Tante Ju"** sweeps low over a Russian Orthodox Catholic Cathedral on its way to a forward airfield in the central sector of the East Front during the fighting in September of 1941.



This **Ju 52** tows a **Gotha Go 242 Cargo** over the vast frozen Russian Steppes during a resupply mission in the Spring of 1943. The **Gotha Go 242** glider played a big role in the resupply of German ground elements that were cut off by Soviet encirclements, and an even bigger role in the evacuation of wounded.

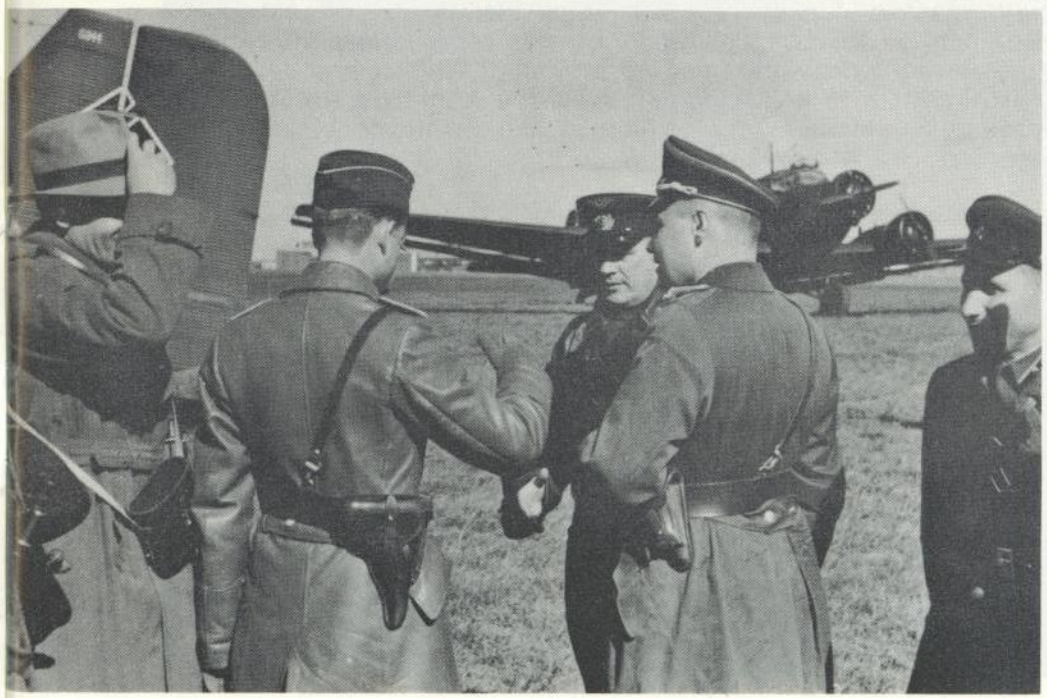
III./KG zbV 1

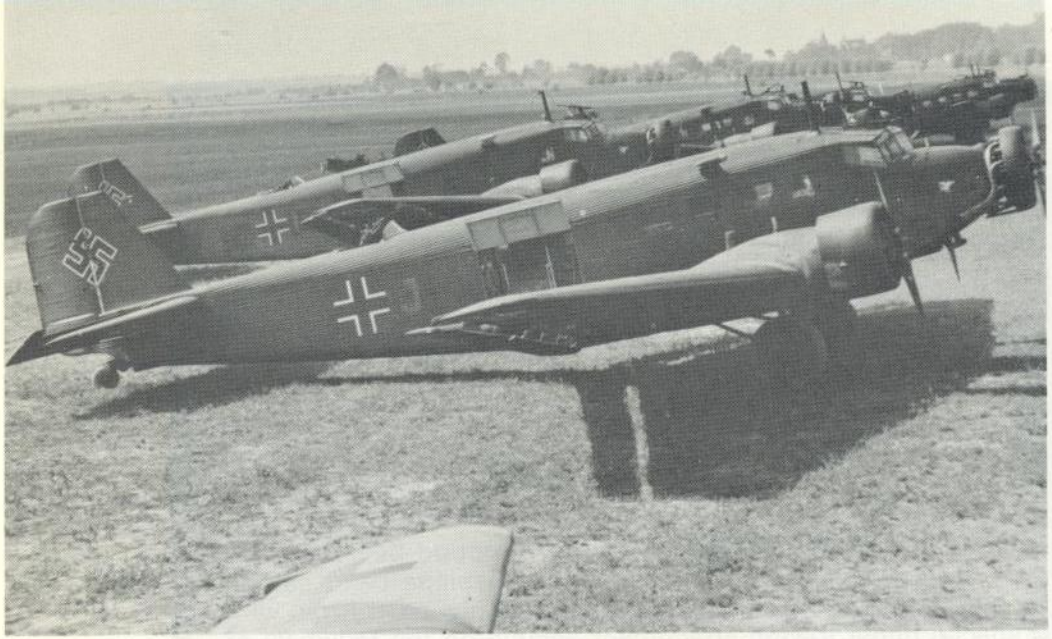

VB UF



This interesting pair of photographs shows both German and Soviet Military Officers meeting on an airfield in Poland in late October of 1939 just after the Polish Campaign had ended. The Soviet-German Non-Aggression Pact was signed in November of that year and Poland was formally divided between the Germans and Soviets. The Soviet Army officer is wearing a billed "Furazhka" hat and the typical olive-colored overcoat, while the Soviet airman wears the dark blue dress hat and the distinctive black leather coat. Both Soviet officers wear their rank insignia on the collars of their coats; a practice that was later discontinued.

(Below) The **Ju 52** transport in the background bears a close look as it carries the distinctive yellow fuselage band carried by aircraft operating on the East Front and has been fitted with a special glider towing attachment, visible on the tailwheel of werke nr. 10043.

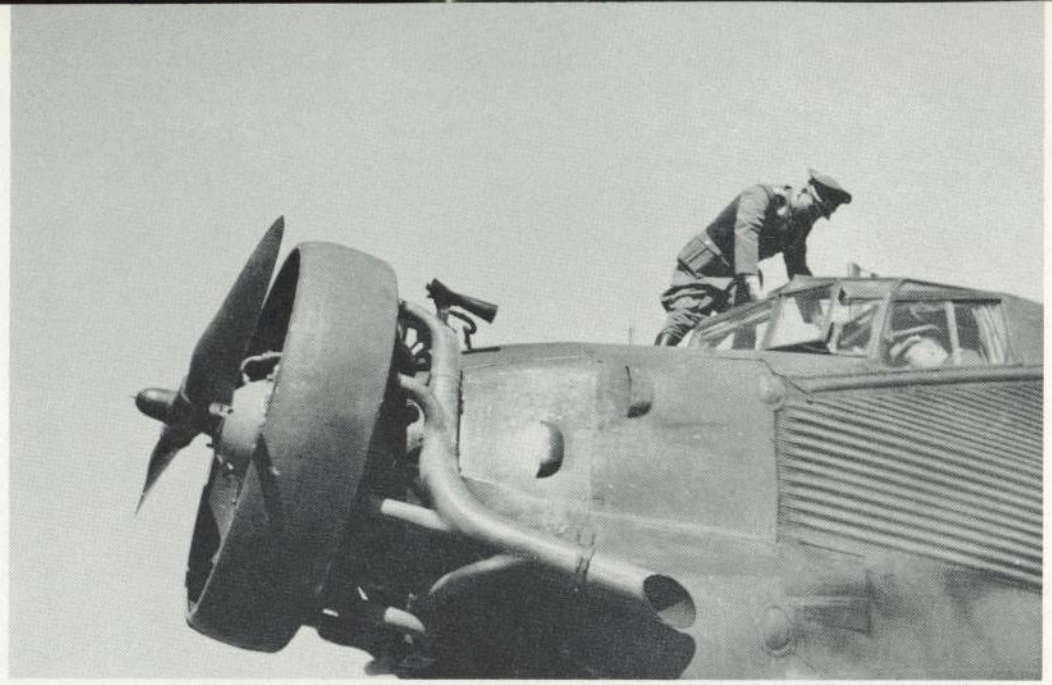




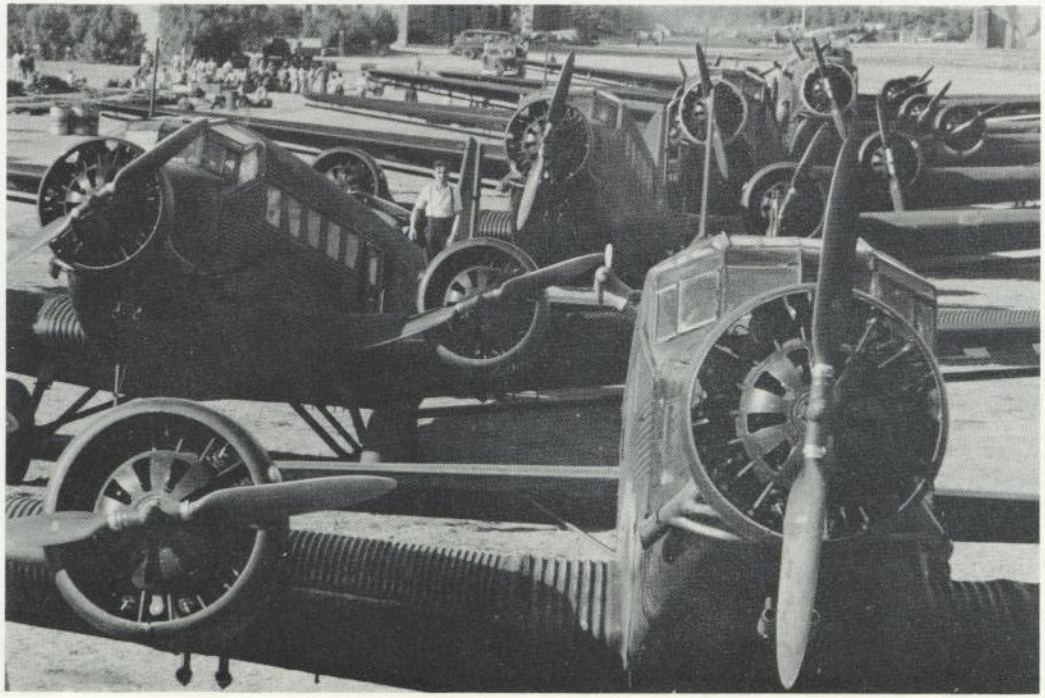
This rare photograph shows an airfield in Northern Germany with massed **Junkers Ju 52's** from the first and second Gruppen of KGzbV1 readying for the aerial phase of the invasion of Norway and Denmark in April of 1940. Almost all of the Aircraft in the Photograph wear the bright yellow nose band on to which the unit insignia, an eagle with wings spread apart, is emblazoned.

(Above left) A line-up of aircraft of KGzbV2 await loading with their starboard cargo doors open. **Ju 52's** like these played large roles in the aerial invasions of Holland, Belgium, Denmark, Norway and Crete. Large numbers of Ju 52's were also earmarked for the planned aerial invasions of England and Malta.

A massed formation of **Junkers Ju 52** transports being loaded for a resupply flight during the Demyansk Aerial Supply Operation when the German II. Armeekorps had their lines of supply cut by the Soviets in April of 1942. This photo shows Ju 52's in a number of camouflage schemes. Some carry the solid dark green uppersurfaces; others bear a two-tone green "splinter" pattern; at least one has a green and grey "splinter" pattern; several have had a temporary white winter camouflage applied and one aircraft bears the grey and black livery of the German Civil Airlines, the Deutsche Lufthansa.

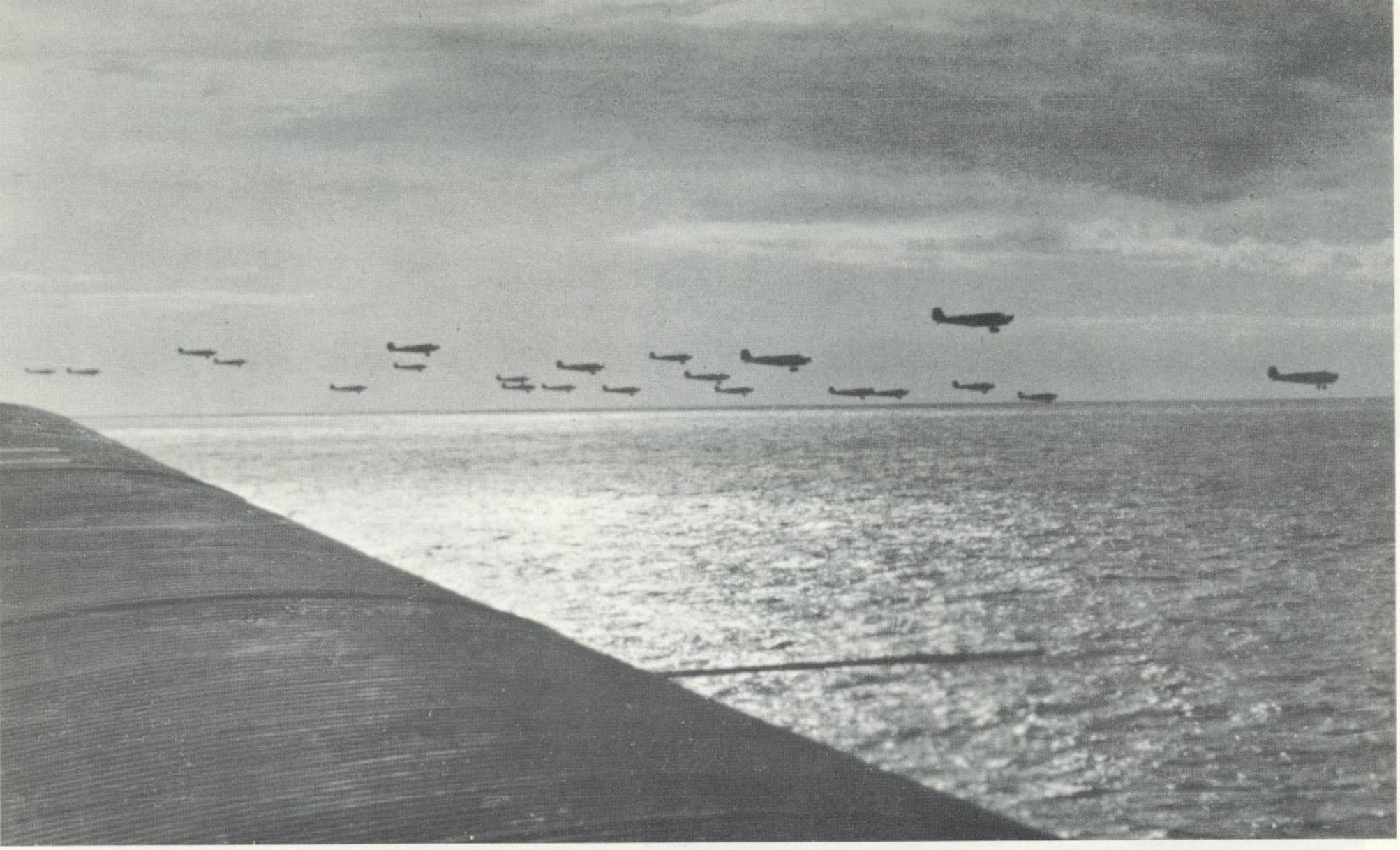


Luftwaffe officers study the flight plan and last minute weather reports from the cockpit of this **Ju 52.** The absence of a standard unit insignia on the nose of this aircraft (plus the presence of officer crewmembers) indicates that this is quite possibly a staff transport of a high ranking Luftwaffe or Wehrmacht officer.



Eight **Ju 52's** of III Gruppe, KGzbV1 line up at an Italian Airfield awaiting a load of gasoline and oil for Rommel's hard-pressed Afrika Korps in Libya. These aircraft were one of the major reasons the German Forces in North Africa were able to resist as long as they did against both the British and the Americans.

IV./KG zbV 1

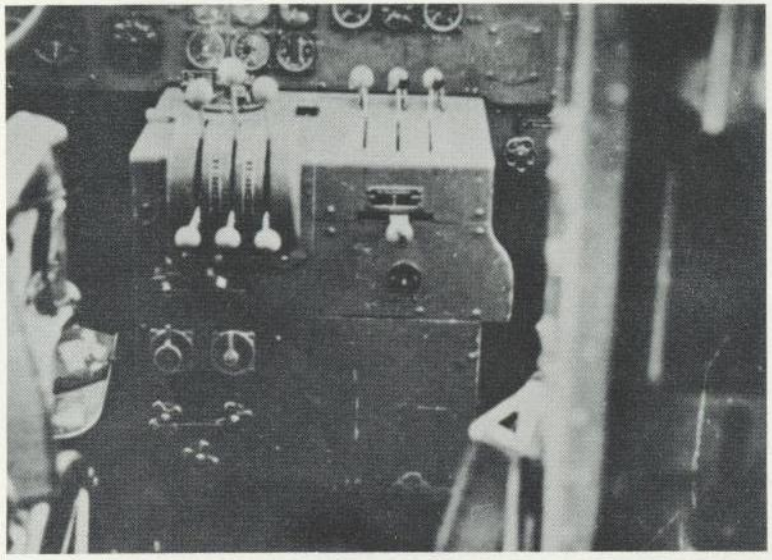


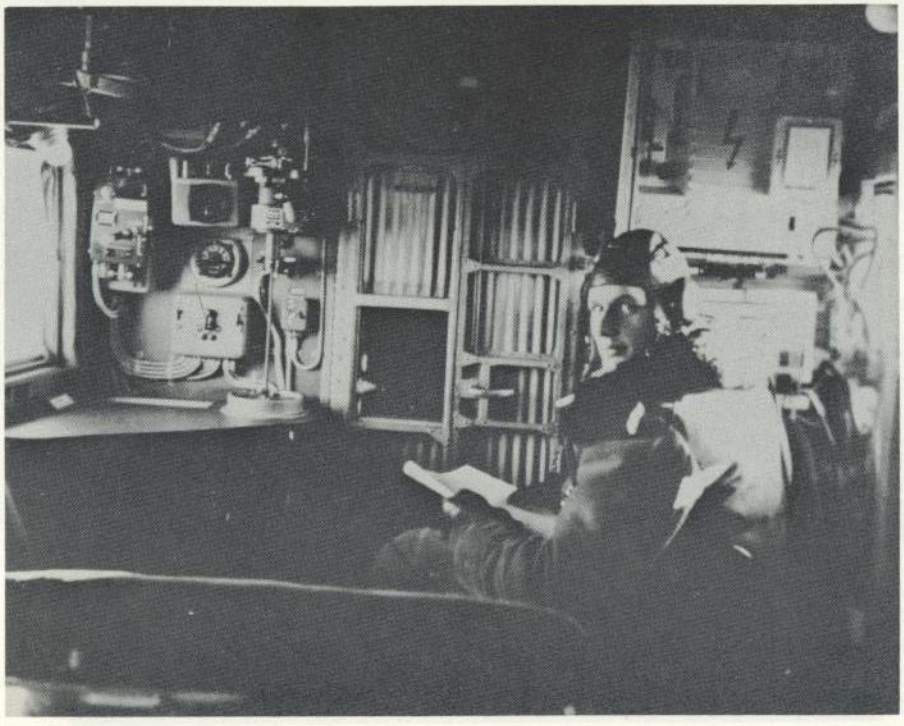
As the sun sets behind them, this formation of **Ju 52's** leaves the Afrikan coast on its way across the Mediterranean toward the island of Sicily. A number of times toward the end of the North African Campaign, massed formations of Ju 52's like these were attacked by large formations of Allied fighters and medium bombers. Without adequate fighter escort and altitude with which to escape or disperse, the German formations were completely decimated.

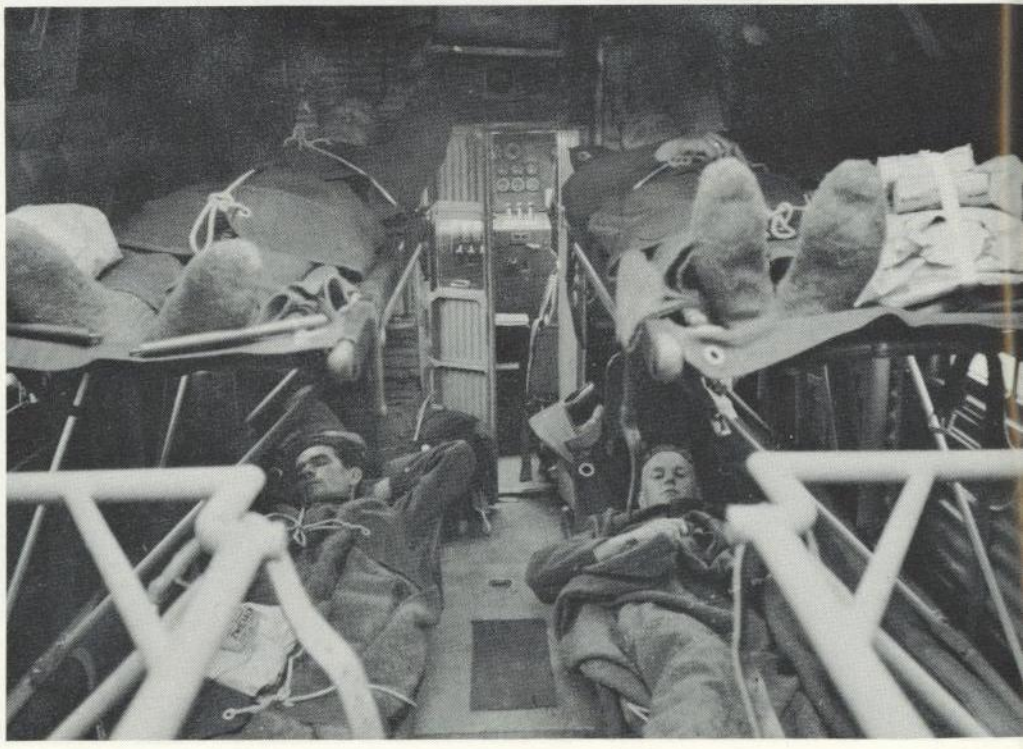
The rather spartan, yet comfortable interior of the passenger compartment shows no traces of the **Ju 52's** corrugated aluminum exterior. Note the robust, comfortable leather-covered chairs occupied by a General (right) and his staff members.

A Luftwaffe Sergeant leans out of the cockpit through the forward defensive machine-gun position of his **Ju 52.** Unlike the rear dorsal machinegun position, the forward gun position had no windscreen to protect the gunner from propeller blast or inclement weather.

(Below left) The **Ju 52's** rear dorsal machinegun position. This view shows the built-up ring and protective windscreen as well as the heavy caliber **MG 131 13mm** handheld machine gun. Note the ring and bead sight on the gun already offset to provide a lead for the gunner.





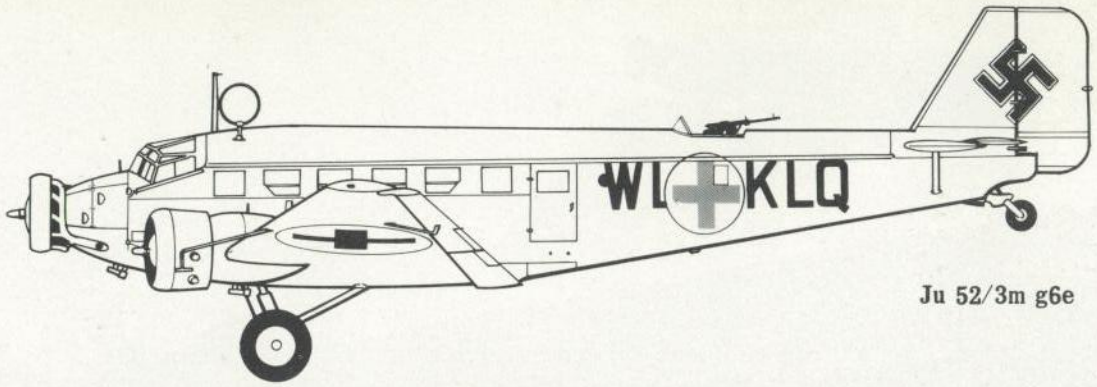


(Above left) This Luftwaffe Sergeant gets a few minutes at the controls of a **Ju 52** flying over the Mediterranean Sea. The aircraft is actually being flown from the co-pilot's position. This shot gives a good indication of the forward, upward and sideward visibility afforded by the flat-sided panels that made up the Ju 52's canopy.

(Left) Taken from the radio compartment through the open door, this view shows the central console between the pilot's and co-pilot's seats. Note that most of the instruments and control knobs are in threes. Corresponding to the **Ju 52's** three radial engines.

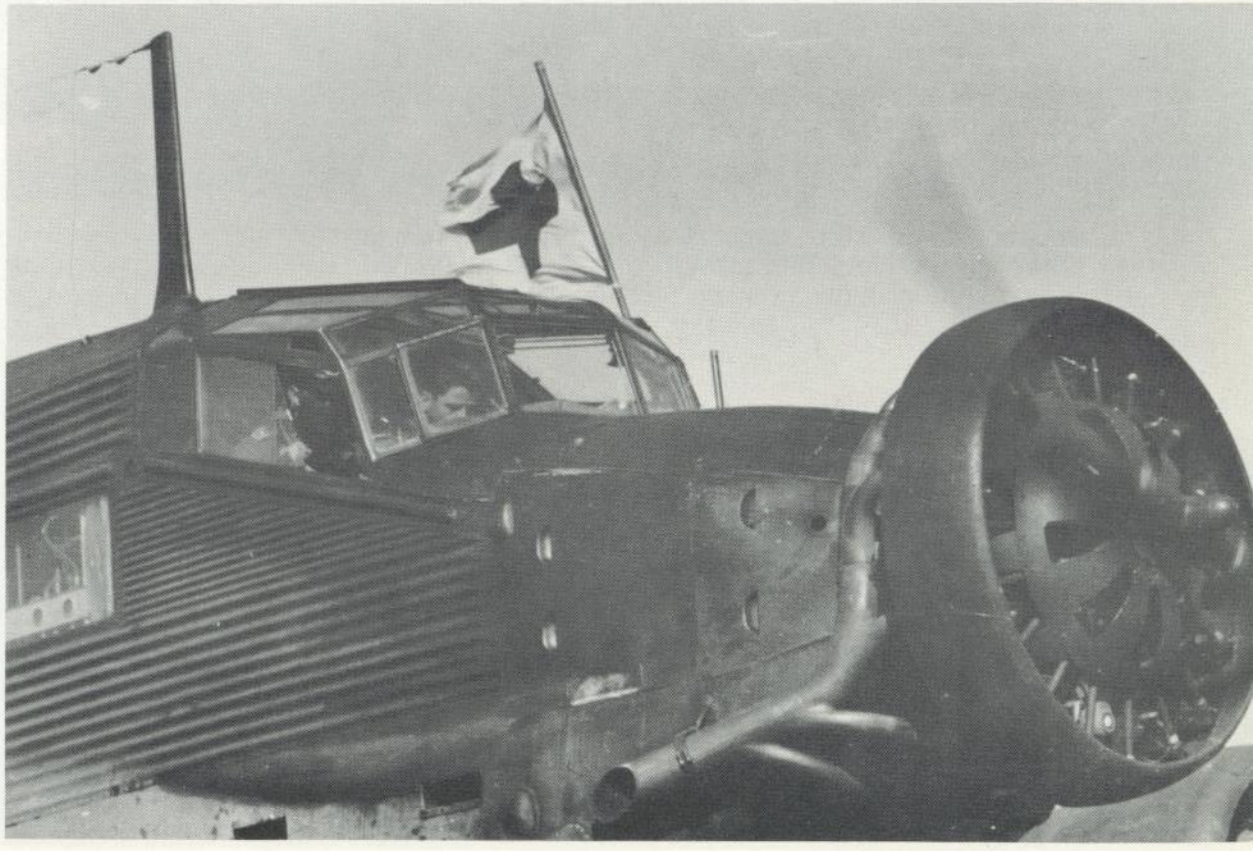
(Left) An interior view of a **Ju 52** converted into an aerial ambulance with the use of a stretcher kit. The seats of the passenger compartment have been removed and twelve stretchers have been installed along the sides of the aircraft. Each stretcher was fitted with wide harnesses used to tie the wounded securely so that a rough take-off, landing or rough weather would not throw them out of the stretchers. Parachutes are stored in the background.

(Below left) The radio compartment of a military **Ju 52** transport. On the left of the photograph is the radio receiver and radio direction finding equipment, while on the right, in grey-painted cabinets and boxes distinctively marked with a red arrow and lightning bolt is the radio transmission equipment. Note the unfinished corrugated aluminum skinning on the door to the cockpit.

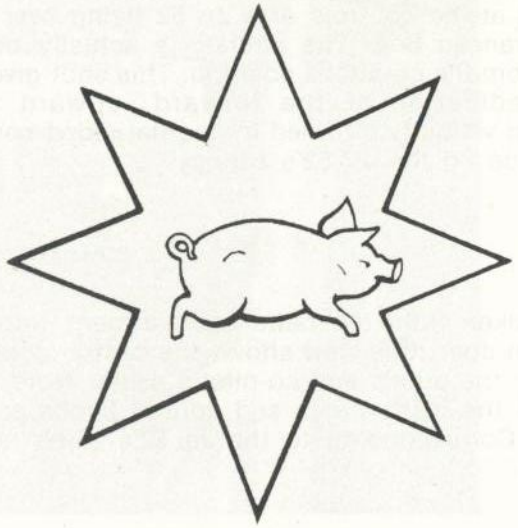


Ju 52/3m g6e

This **Ju 52** transport bears a makeshift Red Cross pennant signifying that she is an ambulance. A close look at the window on the side of the fuselage will reveal the aluminum framework of the radio transmission equipment.



Supply troops stop loading a **Ju 52/3 mg** while observing the lumbering take-off of a Ju 52 of III/TG3 for yet another flight over the Mediterranean to Tunis.

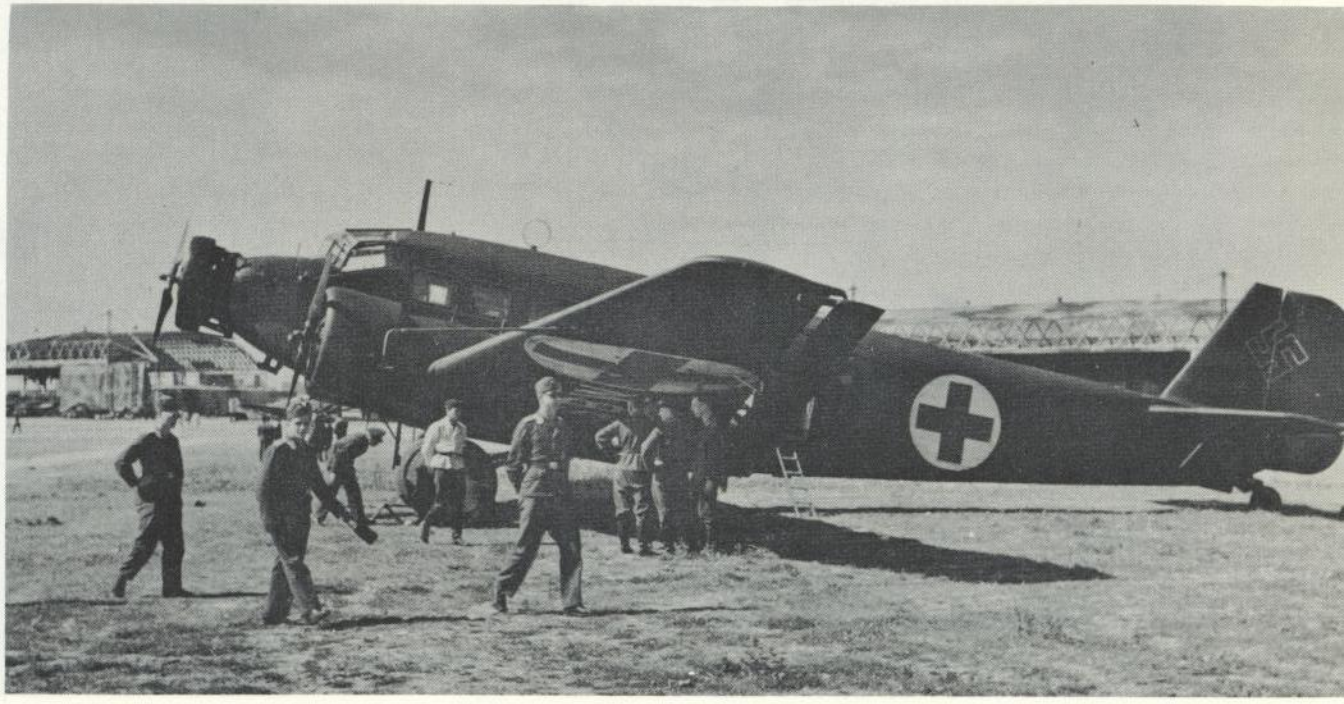


TRANSPORT GESCHWADER 3

(Above right) A close-up of the corrugated fuselage of this **Ju 52** shows that armament was still carried although the aircraft were used for ambulance purposes. This rear dorsal position gunner is adjusting the ring sight of the drum-fed **MG 15** machine gun on its ring mount.

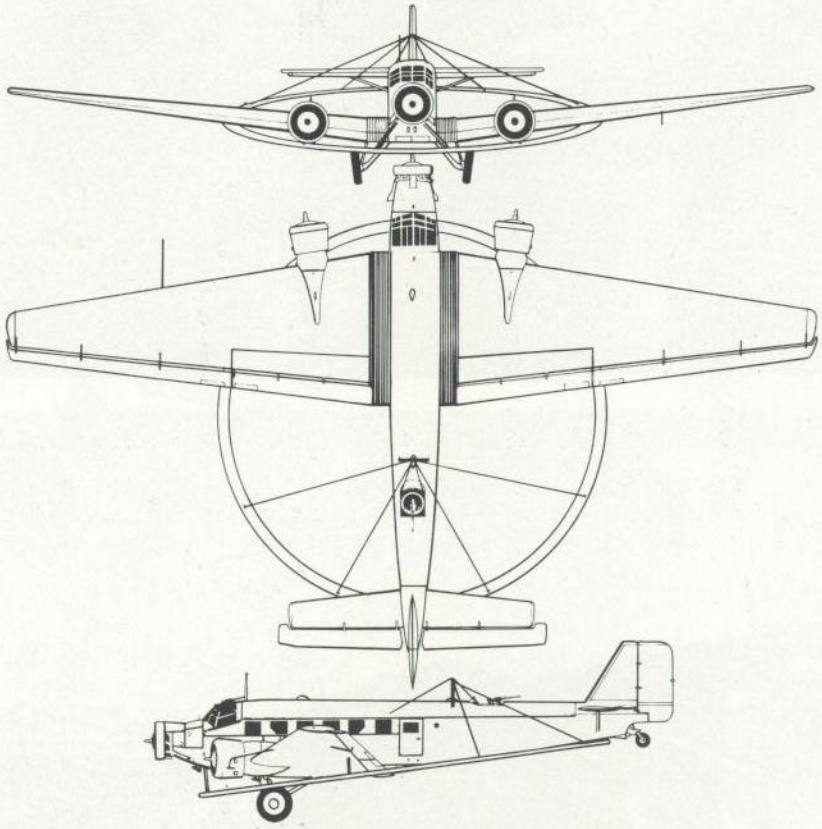
During the Polish Campaign, a number of **Ju 52's** were converted to Ambulance planes to speed the transfer of seriously wounded from combat areas back to hospitals far behind the Front. Some of these Ju 52's were distinctively painted in white, like the one in the photo, while others were simply painted with large red crosses.

(Above right) Two ambulance **Ju 52's**. Both armed with two **7.9 mm MG 15,** carry their ambulance markings over a two-toned green, segmented "splinter" pattern camouflage scheme. The swastika insignia on the tails of the aircraft is divided evenly on the stabilizers and the rudders. Later during the war, the swastika marking was moved forward.



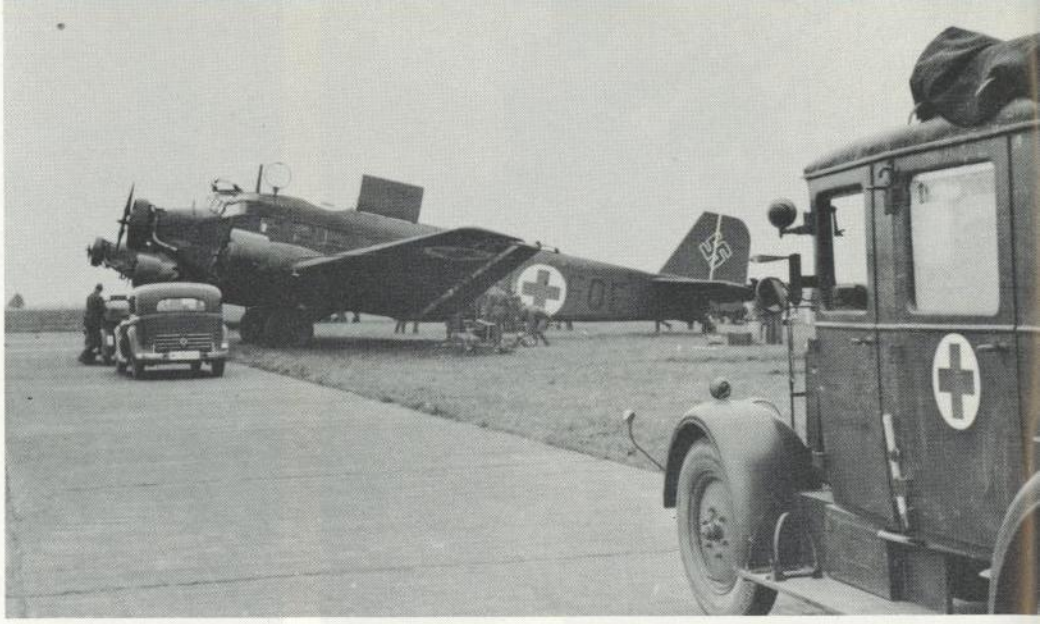
(Right) This **Ju 52** Ambulance aircraft, as those above, has been painted with white circles over which red crosses have been imposed. The aircraft still carries its military color scheme of dark green. This photograph was taken at a Polish Airbase after the conclusion of the Polish Campaign.

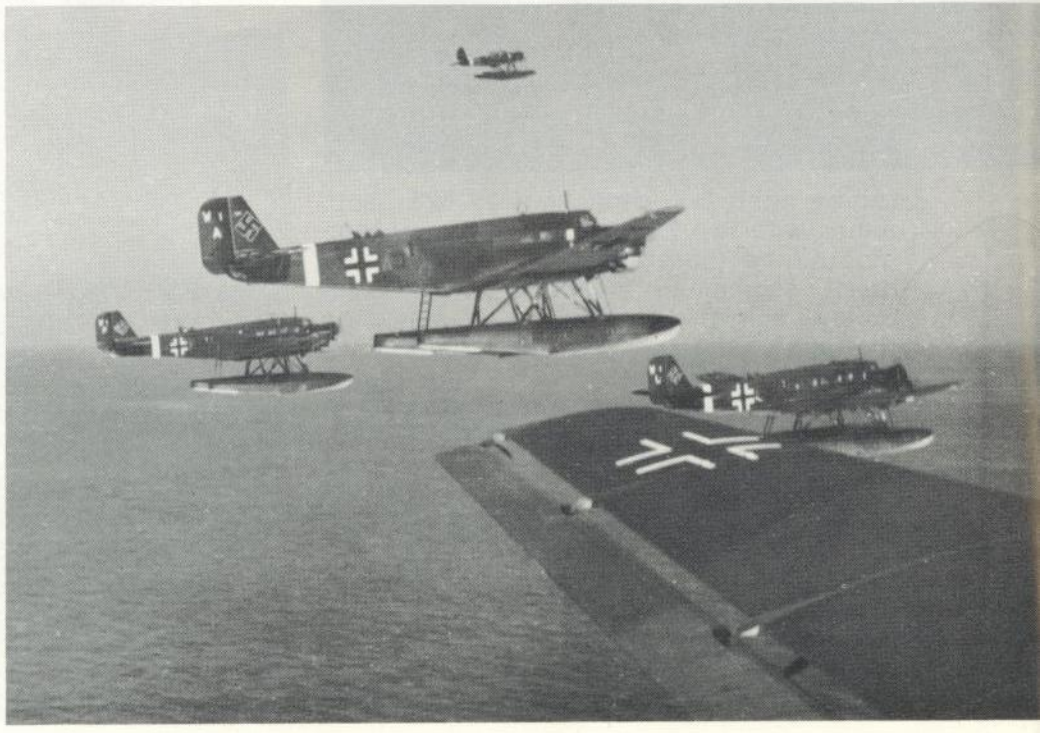
Ju 52 ambulances are being loaded with both patients and passengers. Some passengers and ambulatory patients are entering through the passenger door on the port side of the closest aircraft, while the cargo door on the starboard side of the airplane is shown raised upward to its highest position, allowing entry for supplies and litter patients.



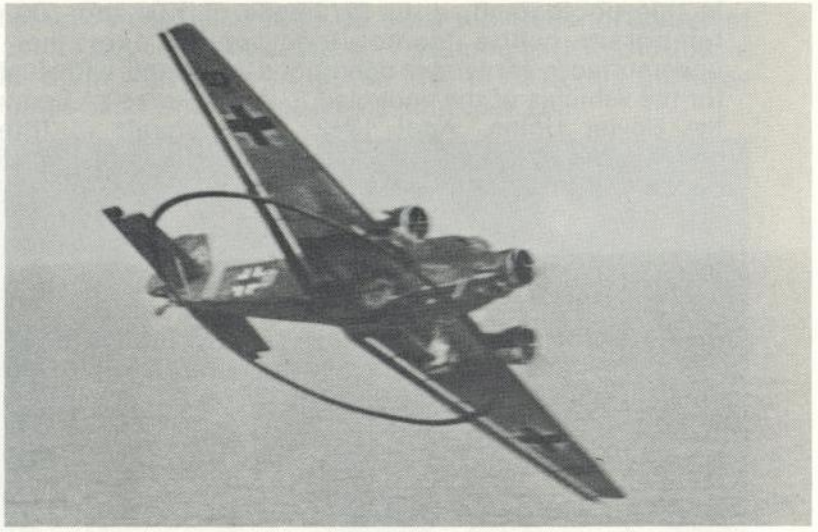
JUNKERS Ju 52/3m g6e(MS)

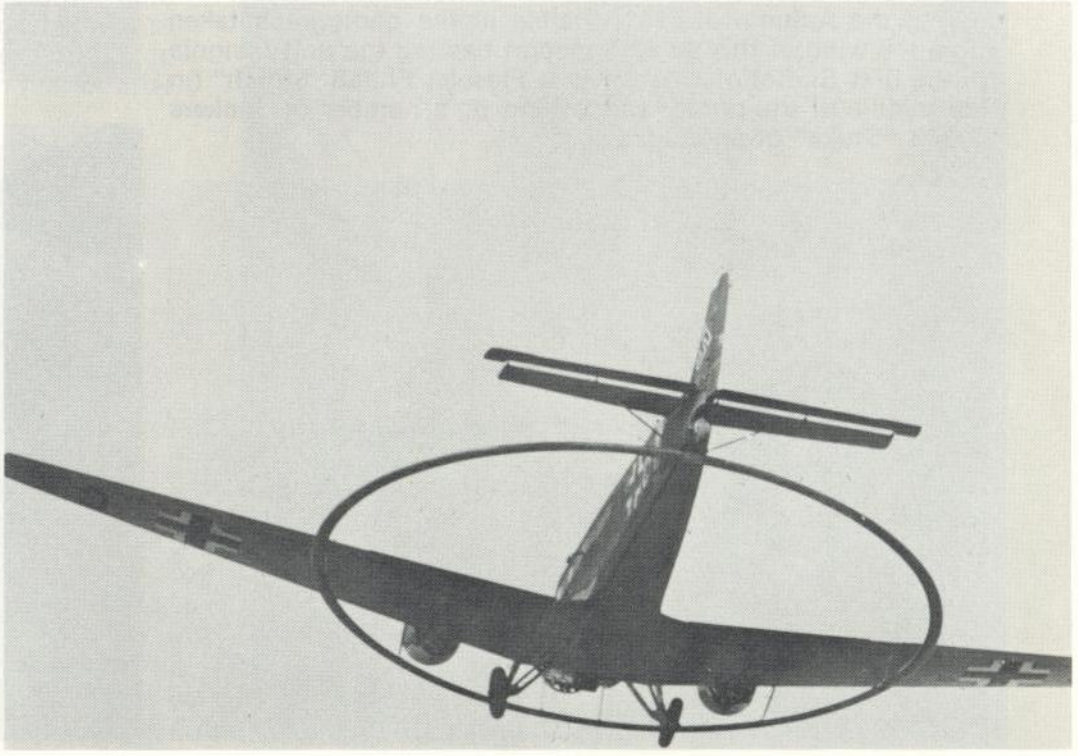
Junkers Ju 52/3mg6e (See) of Seetransportstaffel. Note that each aircraft carries a two-toned green camouflage scheme, as well as the white fuselage band carried by most aircraft operating in the Mediterranean Theatre of operations. Acting as an escort for the Ju 52's is an **Arado Ar 196A-3** floatplane of a Mediterranean Reconnaissance Unit.





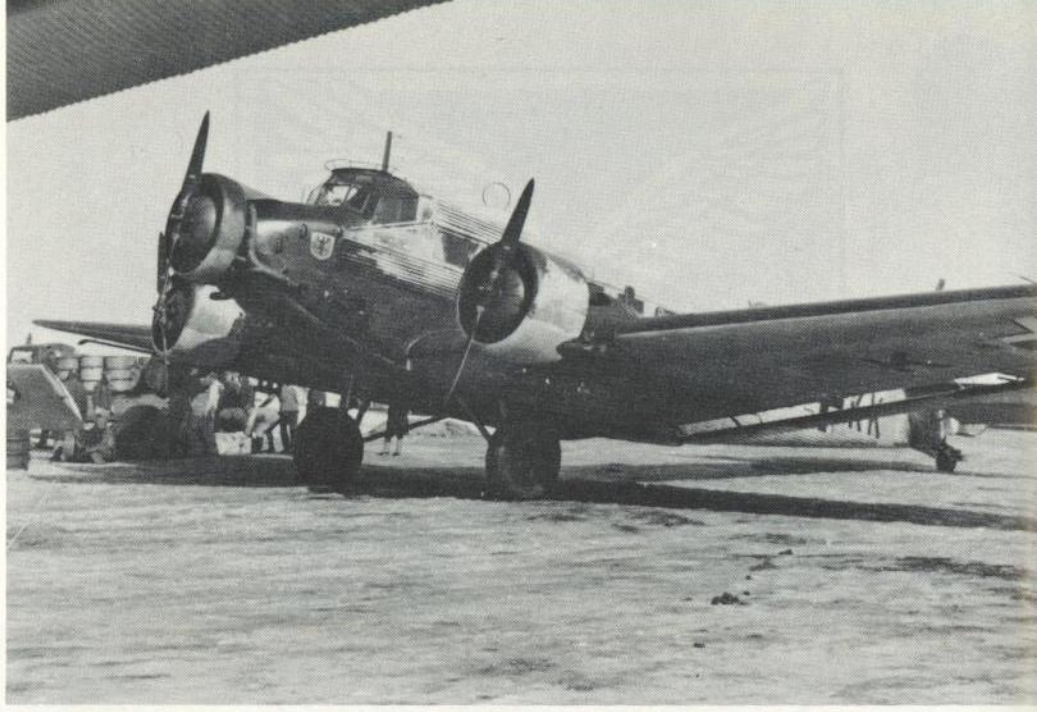
MINENSUCH-GRUPPE 1 der LUFTWAFFE





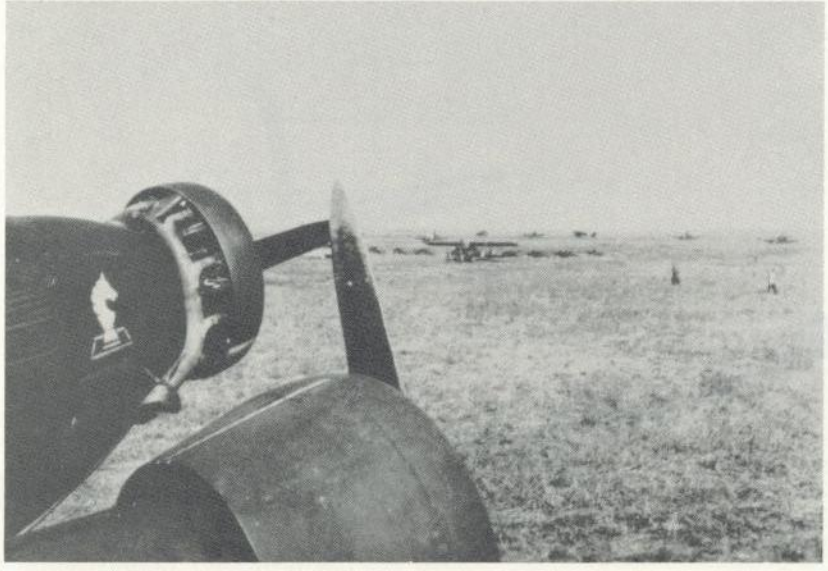
Performing yet another task is this **Junkers Ju 52/3mg6e** (MS) Minensuch. The large ring was an electrified metal alloy affair built in sections that were supported with bracings under the fuselage and wings. Low voltage current was fed through the ring while the aircraft was flying over water suspected of being mined by the enemy. The electromagnetic field generated by the mine-sweeping ring would explode any magnetic mines encountered.

In this photograph, a **Ju 52/3mg6e** of KGr.zbV 500 bearing temporary white camouflage paint over her green uppersurfaces for winter operations is loaded with fuel drums for the vehicles of the encircled 2. Armeekorps at Demyansk in the Soviet Union, April 1942. This aircraft is fitted with controllable gills on the front of each radial engine for operations in extreme cold.



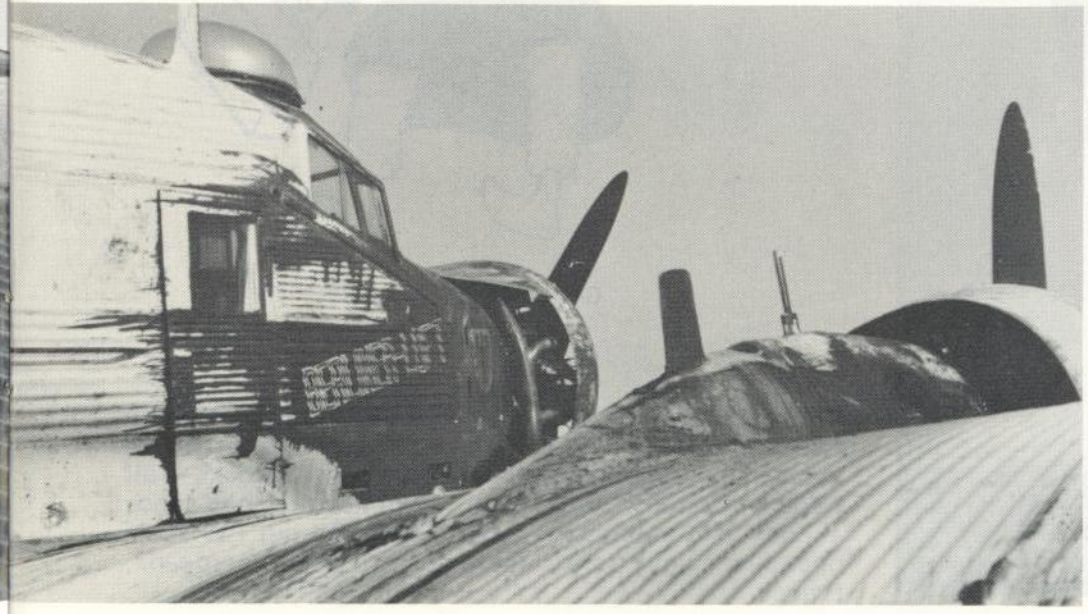
(Below right) The unit insignia of the 4th Staffel of KGzbV9, a duck carrying fuel and supplies from the tropical south on a light blue background.

On a forward airfield in the central sector of the East Front during the Autumn of 1941. Visible in the photograph taken from the wing of this **Ju 52** transport bearing the unit insignia of the first Staffel of KGzbV1 is a **Fieseler Fi 156 "Storch"** (in the middle of the photo) and behind it, a number of **Junkers Ju87B "Stuka"** divebombers.

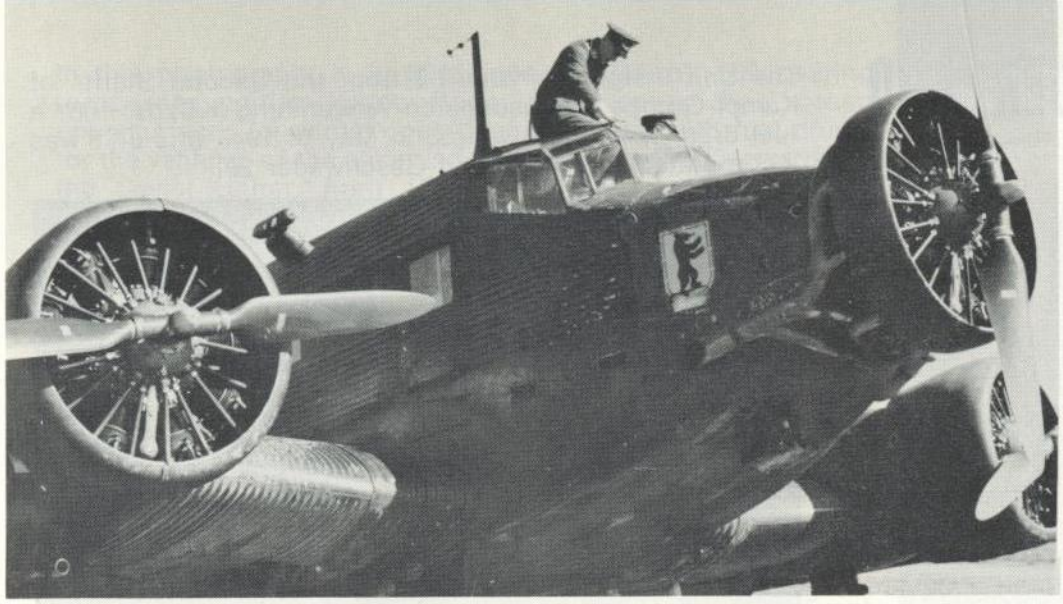


KAMPFGESCHWADER 500

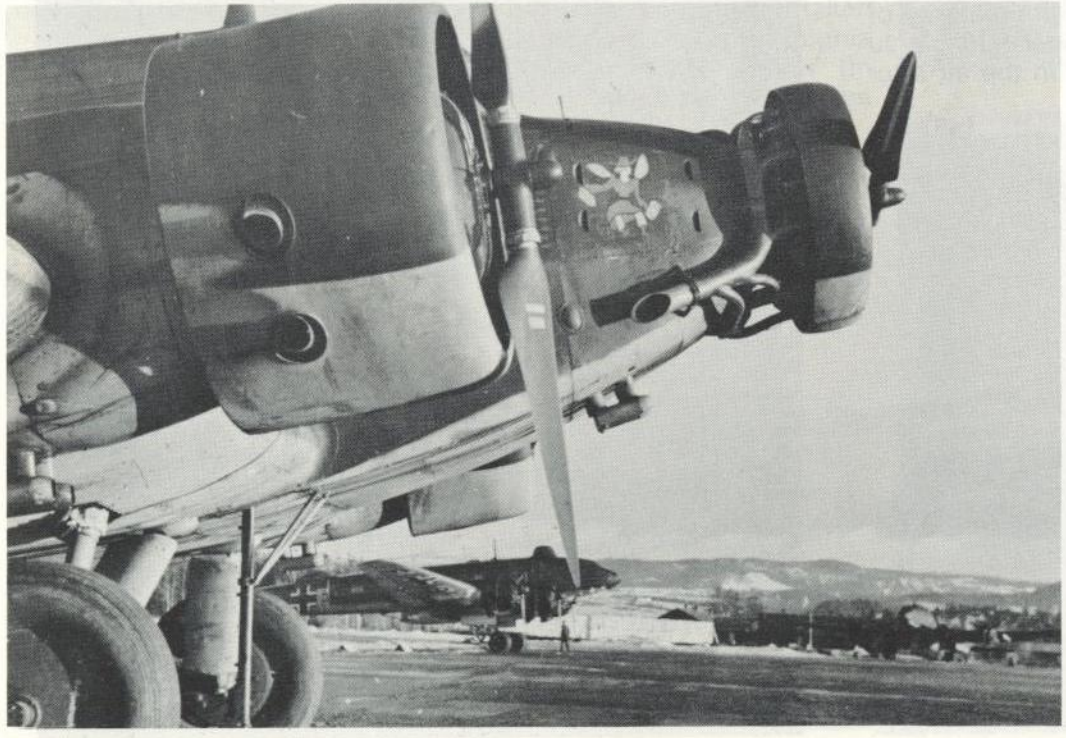
During the first winter offensive on the East Front many German ground units ran into a type of combat they were both unprepared for and unacquainted with. They had advanced much farther than their supply lines and had ultimately been cut off from that supply. Without adequate food, winter clothing, shelter or ammunition, these troops held out until they could be supplied by air. Although the **Ju 52's** carried the majority of the supplies, many other aircraft shared the duties. "Berliner Luft", a Ju 52 of KGzbV 500 shows the effects of much wear and tear in the air after flying numerous aerial resupply missions.



The Unit insignia of a **Ju 52** from the Second Staffel of Kampf-Gruppe zur besonderen Verwendung (KGzbV) 108; a fuel drum with white wings. In May of 1943 this unit was incorporated into Transport-Geschwader 20.



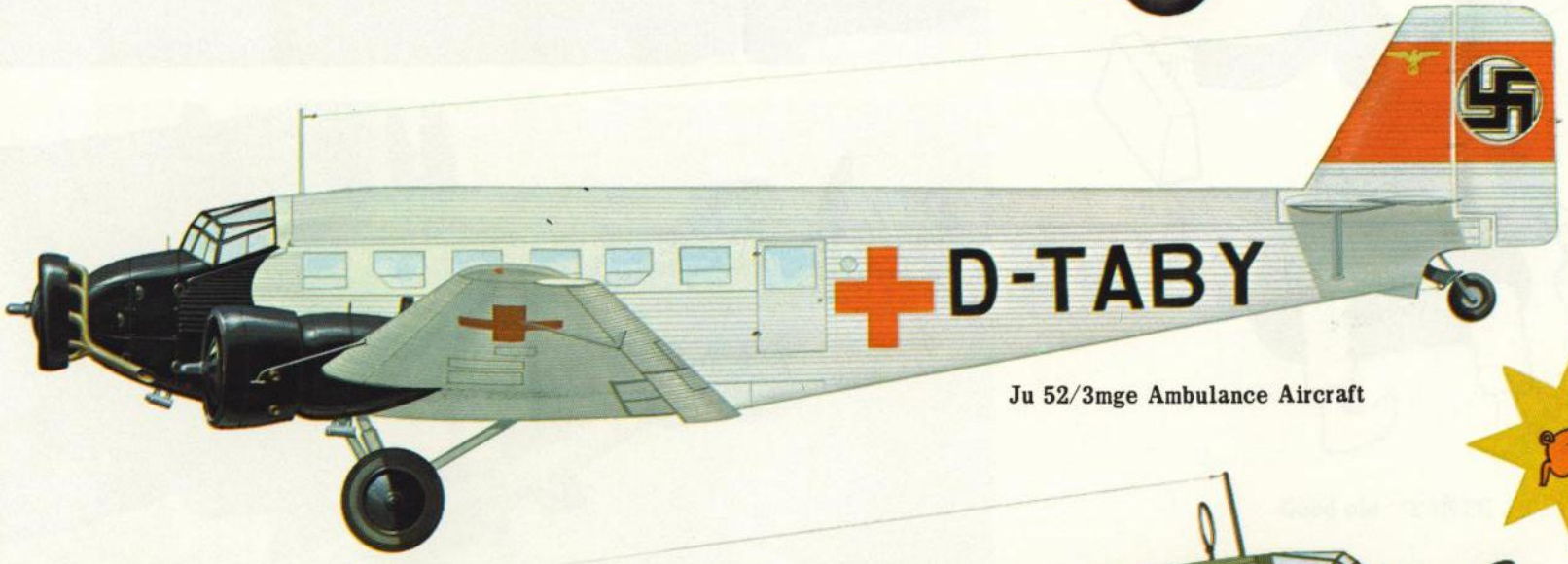
A **"Tante Ju"** of KGzbV1 bearing the Berlin Bear (the coat of arms of that city) is prepared for a flight. Notice the well-worn camouflage scheme on the aircraft, indicative of a lot of use without major repair or reconditioning.



Good old "TANTE JU"

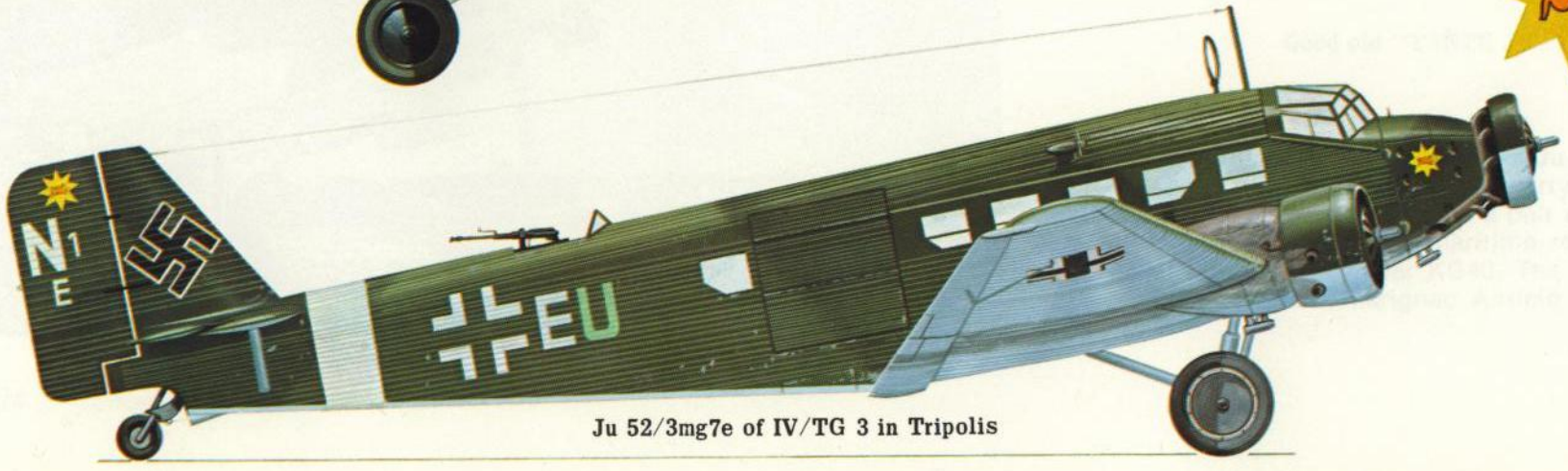
A nice close-up of the frontal area of a **Ju 52** bearing an unusual unit marking of an angel carrying a pair of suitcases shares this airfield with a pair of **Focke-Wulf FW200 "Condor"** long range maritime reconnaissance aircraft of Kampfgeschwader KG40. The big FW 200's operated mainly from Marignac Airfield in Bordeaux, France.

Ju 52/3mg4e Spanish Nationalist Grupo de Bombardeo Nocturno 2-G-22



Ju 52/3mge Ambulance Aircraft

IV./TG 3

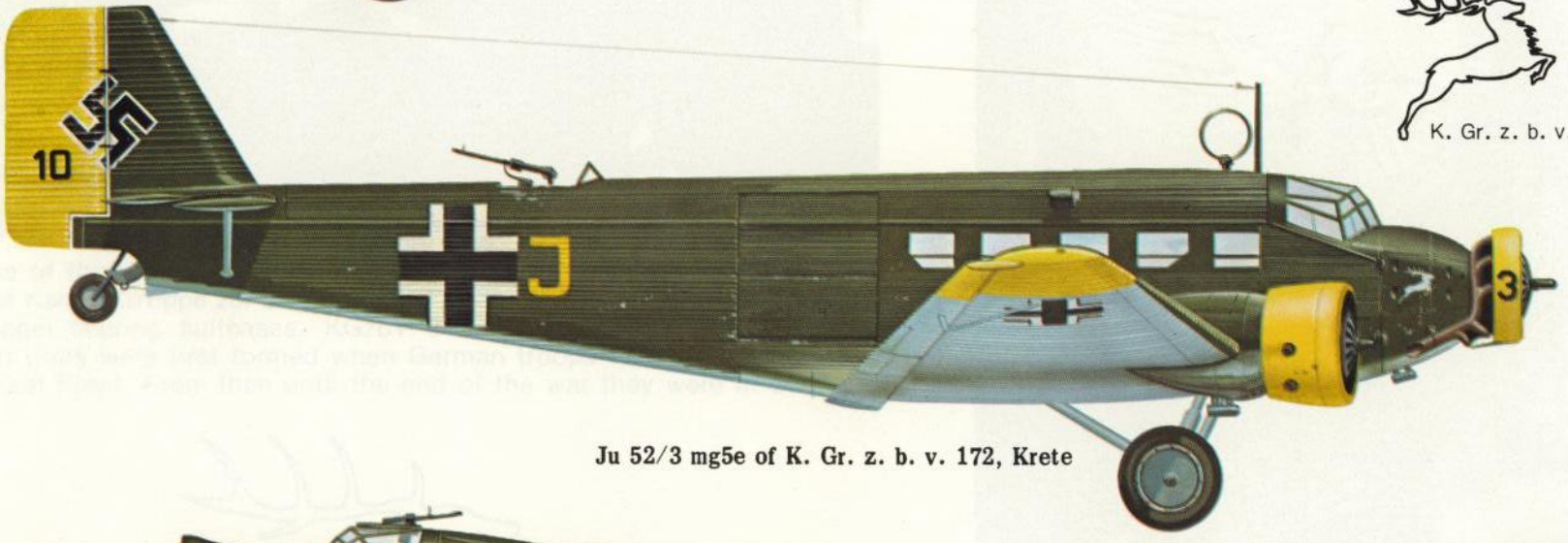


Ju 52/3mg7e of IV/TG 3 in Tripolis

Blind Flugschule B 36

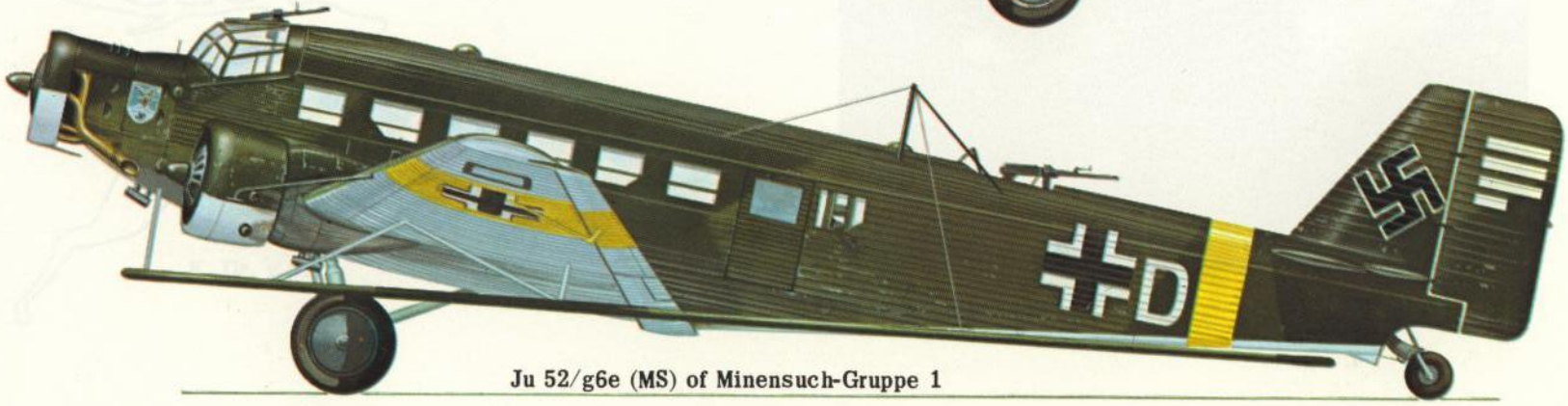
Ju 52/3m g6e of instrument flying school B 36

K. Gr. z. b. v. 172

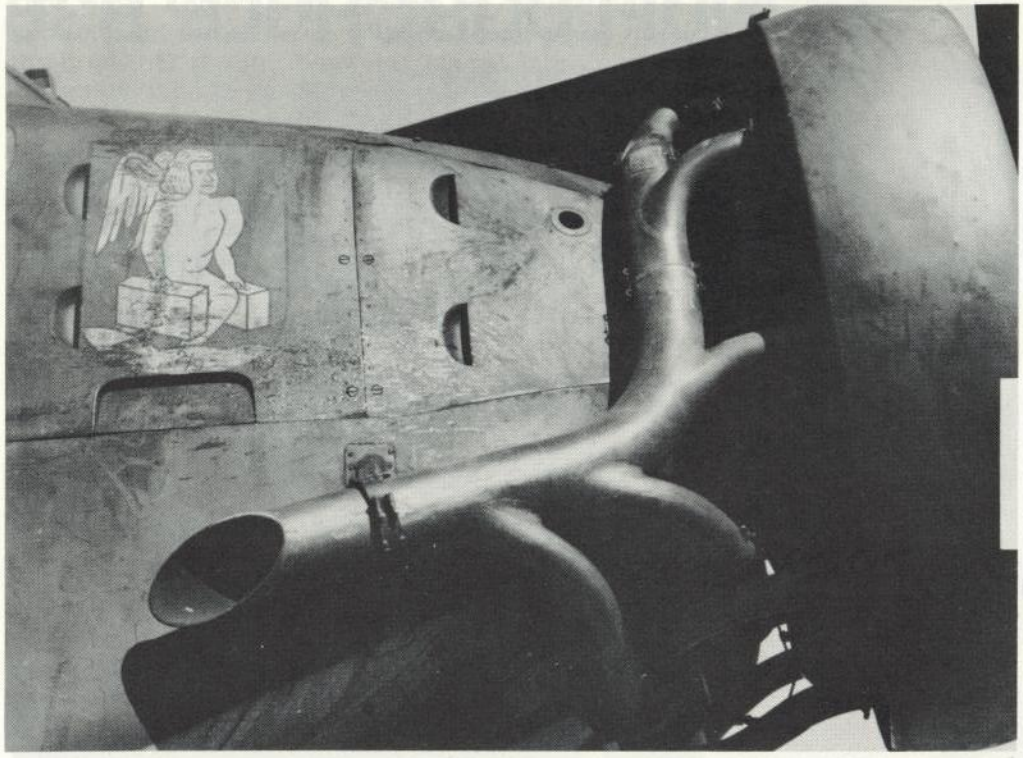


Ju 52/3 mg5e of K. Gr. z. b. v. 172, Krete

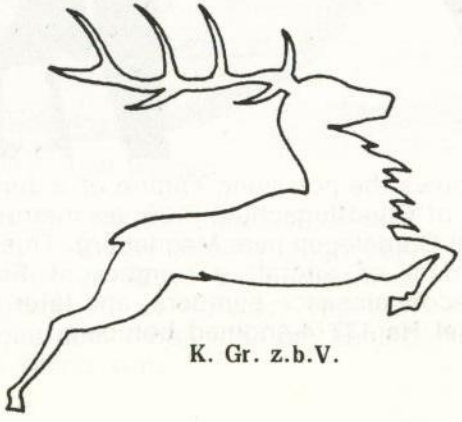
Minensuch-Gruppe 1



Ju 52/g6e (MS) of Minensuch-Gruppe 1

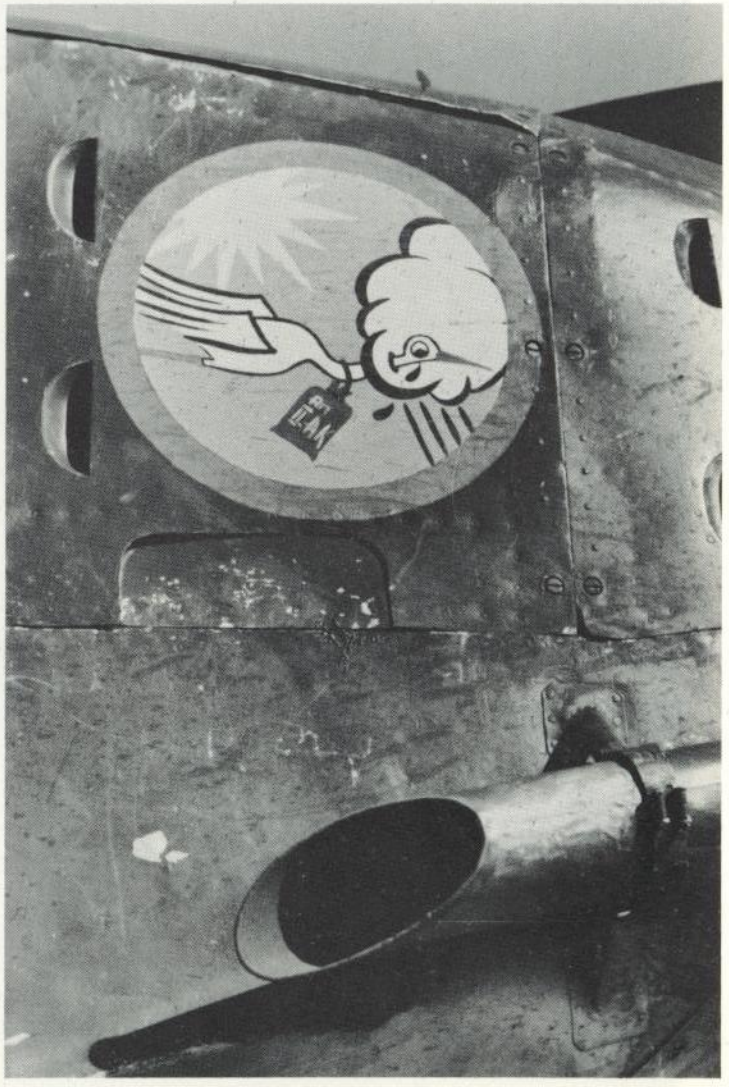


The nose of this **Ju 52** transport carries the Staffel insignia of the Second Staffel of Kampf-Gruppe zur besonderen Verwendung 9, a rather athletic, long haired angel bearing suitcases. KGzbV 9 and a number of other special transport units were first formed when German troops had been surrounded on the East Front. From then until the end of the war they were in constant use.

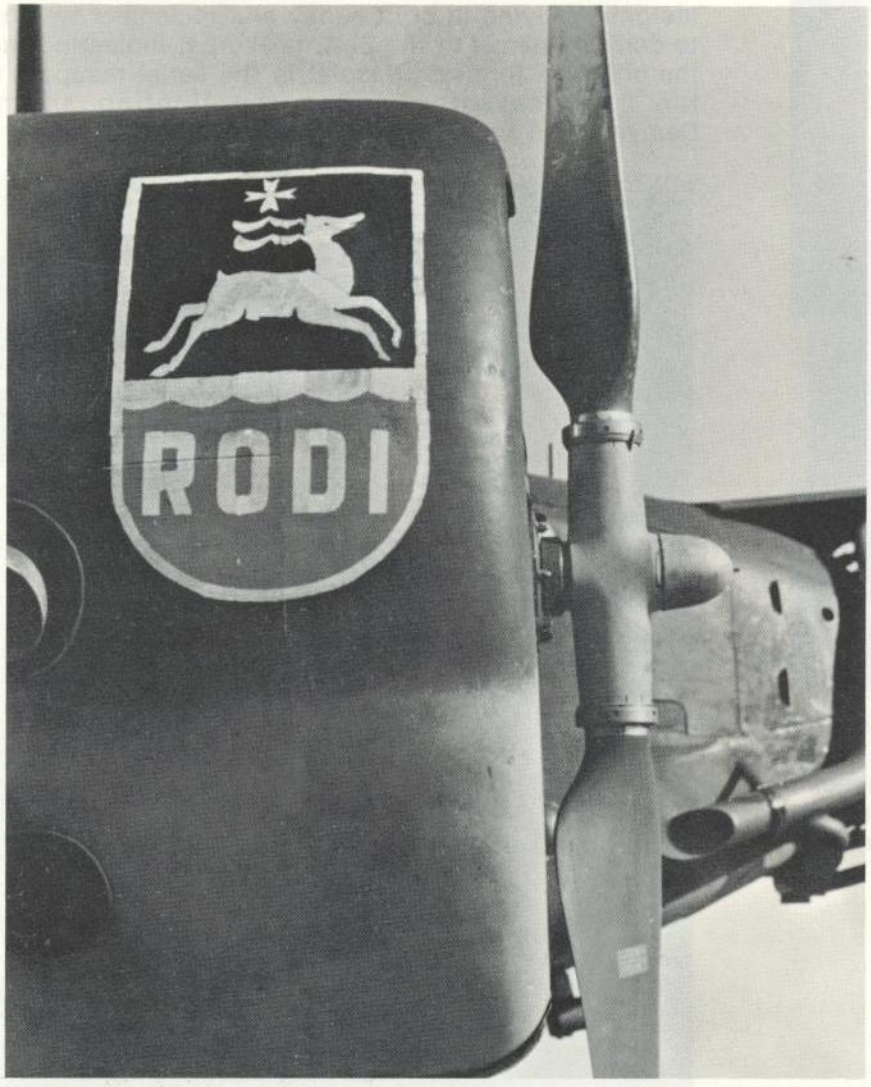


K. Gr. z.b.V.

Although unconfirmed, it is believed that this insignia is that of the **Third Staffel of KGzbV 9.** The Stork on the insignia is flying in both sunny and inclement weather to deliver a parcel to the 2. Armeekorps, indicating that the unit was formed to assist in the aerial resupply of the 2. Armeekorps during the fighting around Demyansk in the Soviet Union in early 1942.



STAB/KG zbV 9

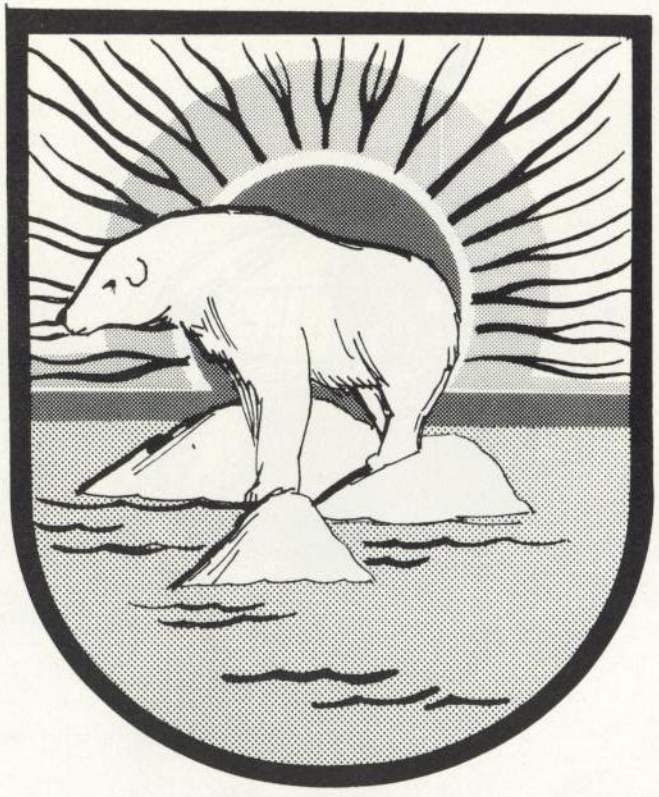


The insignia of the staff flight of **KGzbV 9 [Stab/KGzbV9]** carried by all the aircraft operated by the group's headquarters. The white reindeer was on a field of black, while the area below the reindeer on to which the letters **RODI** are emblazoned was medium green in color.

BLINDFLUGSCHULE B36

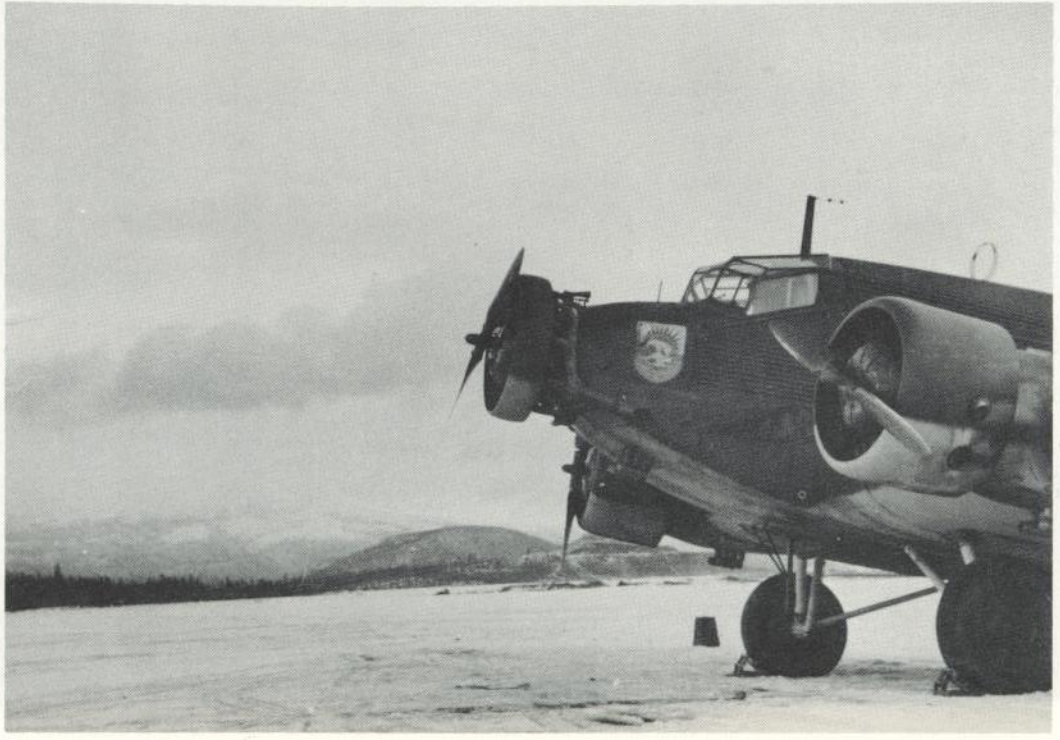
This shot shows the port wing engine of a **Junkers Ju 52** bearing the insignia of Blindflugschule B 36, an instrument flight training unit based at Gardelegen near Magdeburg. This school also had in its complement of aircraft a number of **Focke-Wulf FW 200 4-engined** reconnaissance bombers, and later in the war received some **Heinkel He 177** 4-engined bombers.

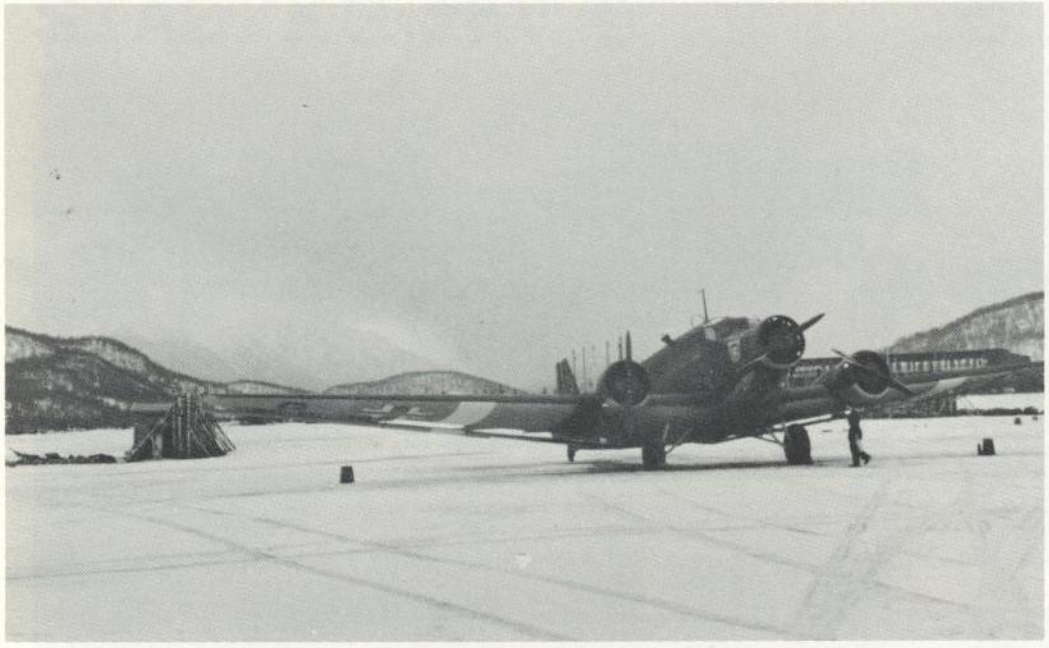
Old **"Iron Annie"** was capable of operating in extremes of weather. To protect her engines from the cold, her ground crew has placed large canvas covers over the three rather exposed radial engines. Notice that the national insignia on the fuselage side has been painted over the wide yellow fuselage band, that identifies her as an aircraft operating on the East Front. Notice also that the undersides of the wings have been painted yellow outboard from the tip to the national insignia.



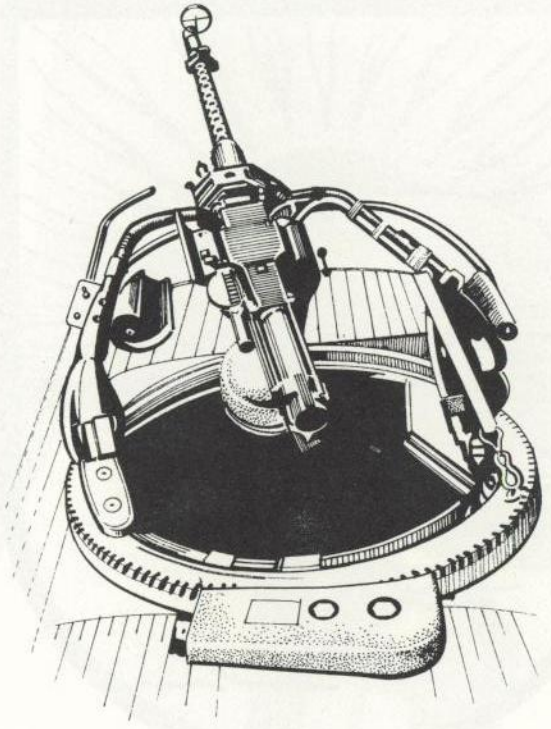
Unknown Unit Insignia

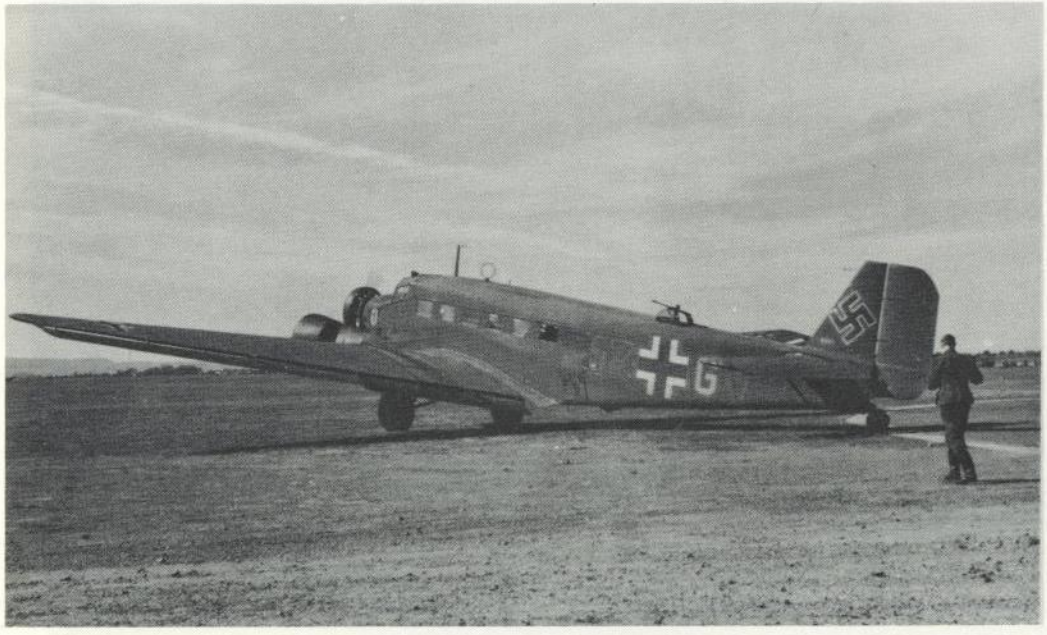
Heavy clouds above the horizon forecast another snowstorm which will probably mean a longer rest on the ground for this **Ju 52** of an unidentified squadron based somewhere in Norway. The unit insignia shows a polar bear on an ice floe, behind which is visible the rising sun.





Another photograph of a Norway-based **Ju 52** bearing the polar bear and sun insignia. It is interesting to note the special chord-length white recognition stripes on the undersurfaces of the wings inboard of the national insignia. These stripes are believed to be worn on aircraft that were assisting in the withdrawal of German combat troops and equipment in early 1944 for the build up of troops along the French coast.



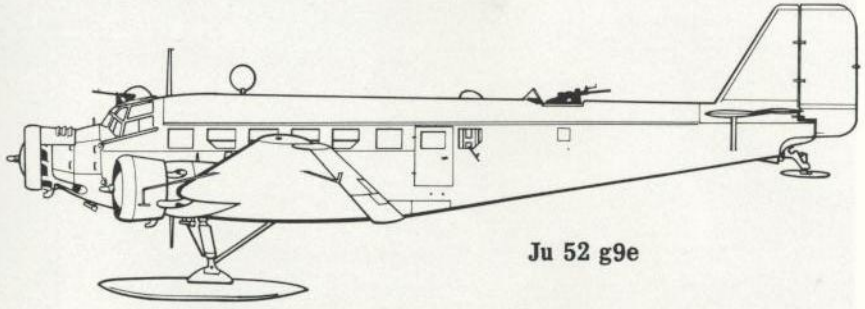


An aircraft of KGzbV1 taxis in after landing. She carries a rear dorsal machinegun as well as machineguns in her rear passenger compartment windows on either side of the fuselage. Aircraft of this unit were the first to carry German paratroopers over the Island of Crete.

The Junkers Ju 52 Over STALINGRAD

When the **6. Armee** was first cut off and surrounded by Soviet Forces orders were issued not to break out or retreat since the 6. Armee could be supplied by air. Between the end of November 1942 and the beginning of February 1943, 240,780 tons of equipment, food, munitions plus 88,700 tons of fuel were brought into Stalingrad by the Luftwaffe's transport units. To perform this feat the Germans flew nearly every type of aircraft in their inventory loaded with supplies into the growing horror of Stalingrad. Every transport and bomber that was capable of carrying a payload of supplies was pressed into service to deliver the considerably less than adequate supplies. Subzero weather, blinding snow storms and fog often times took a larger toll of the transport aircraft than the ever-present and ever-increasing Soviet Air Force and Soviet anti aircraft guns.

The Stalingrad airlift operations were costly — too costly. At least 490 transports were lost and 266 of these losses were **Ju 52/3ms.** In something just over 70 days the Luftwaffe Transportverbande received a blow from which they would never recover.



Ju 52 g9e

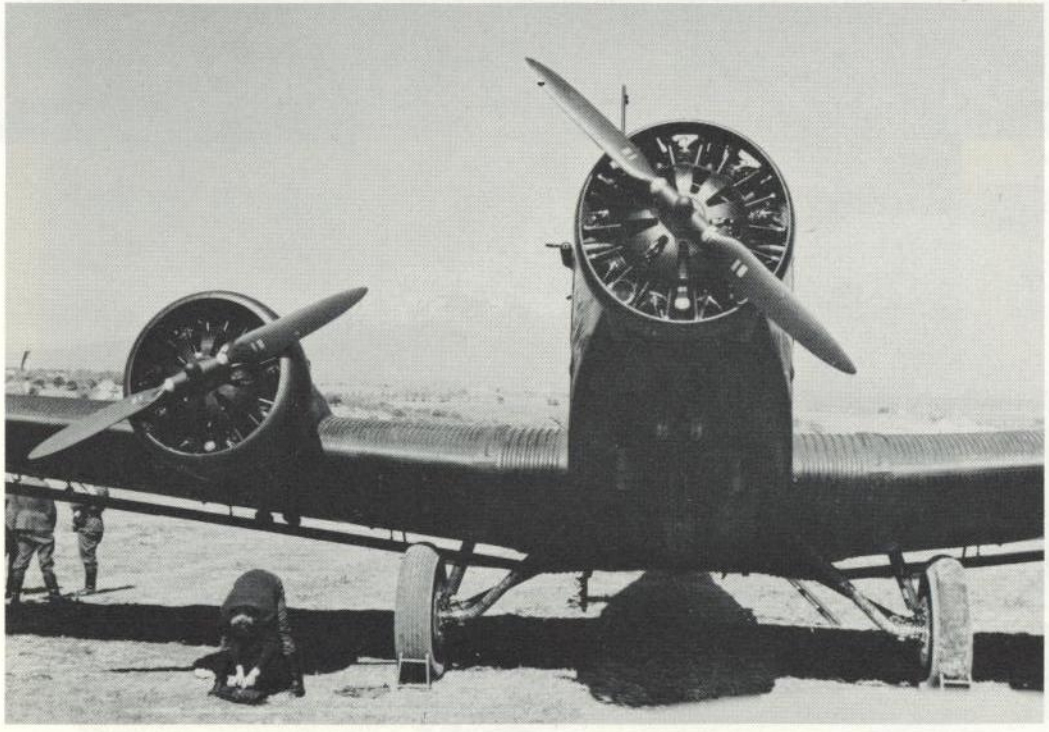
A **Ju 52/3m** of KGzbV9 heads out over the Masurian Lakes of East Prussia on a perilous resupply mission to the surrounded troops of the 2. Armeekorps during early 1942..

FLUGZEUGFUHRER SCHULE 17
(Pilot School)

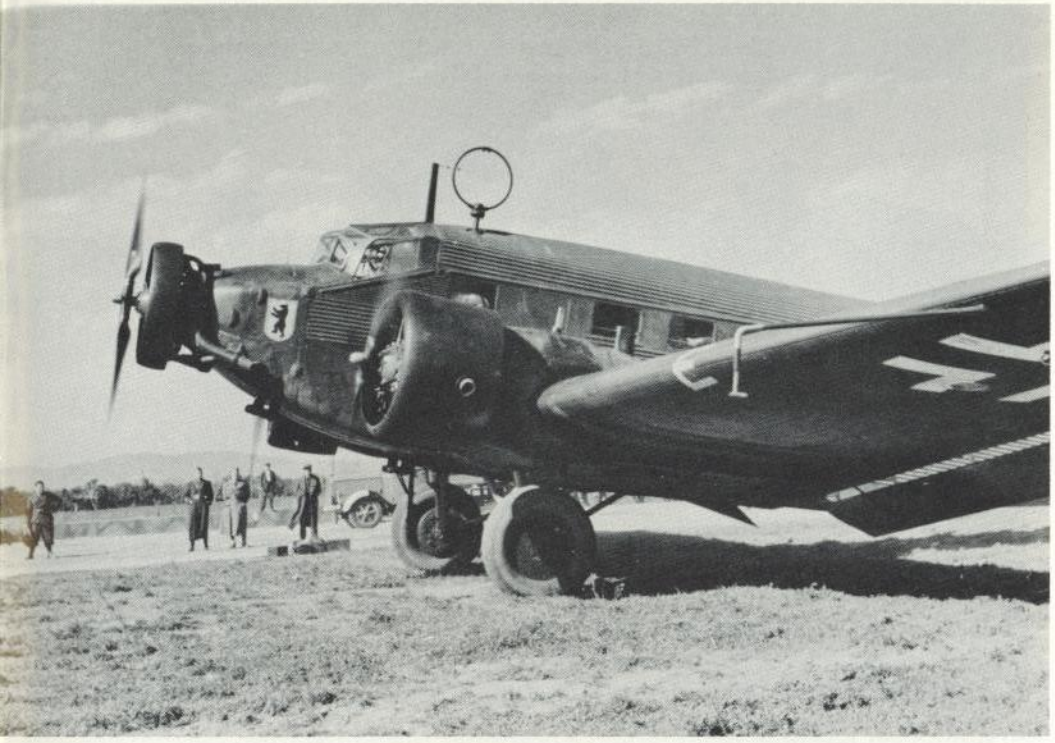
This Norway-based **Ju 52** transport is the private transport of the Commander of all Anti-Aircraft Artillery in Norway and Denmark, as the insignia on the nose illustrates. The insignia is a field, white and black quartered with the Luftwaffe Eagle emblazoned over it. The shield is bordered with a thick red line, the color of the Flak Corps. A close look at the upper left of the photo shows an **FW 189** reconnaissance plane overhead.

Junkers Ju 52/3m Transports are fitted with defensive machinegun ring mounts above the co-pilot's positions on the canopies. Note the odd shape of the pilot tube found on the **Ju 52** seen in the center of the photo.

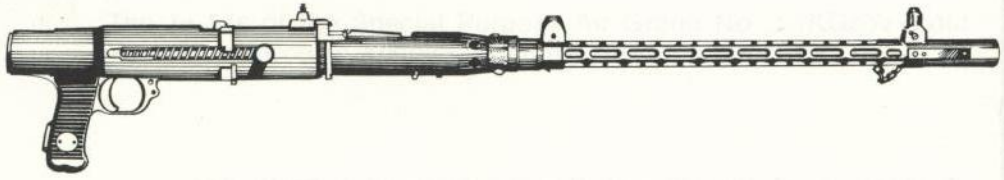
I. GRUPPE TRANSPORT GESCHWADER 1



This **Ju 52/3m g6a** on the airfield at Gela in Sicily as Mt. Etna stands out in the background. A good view is provided here of the **Ju 52's** corrugated wing skinning around the leading edges. The corrugated aluminum skinning offered a tremendous increase in strength over the more conventional smooth skinning used in so many other aircraft.

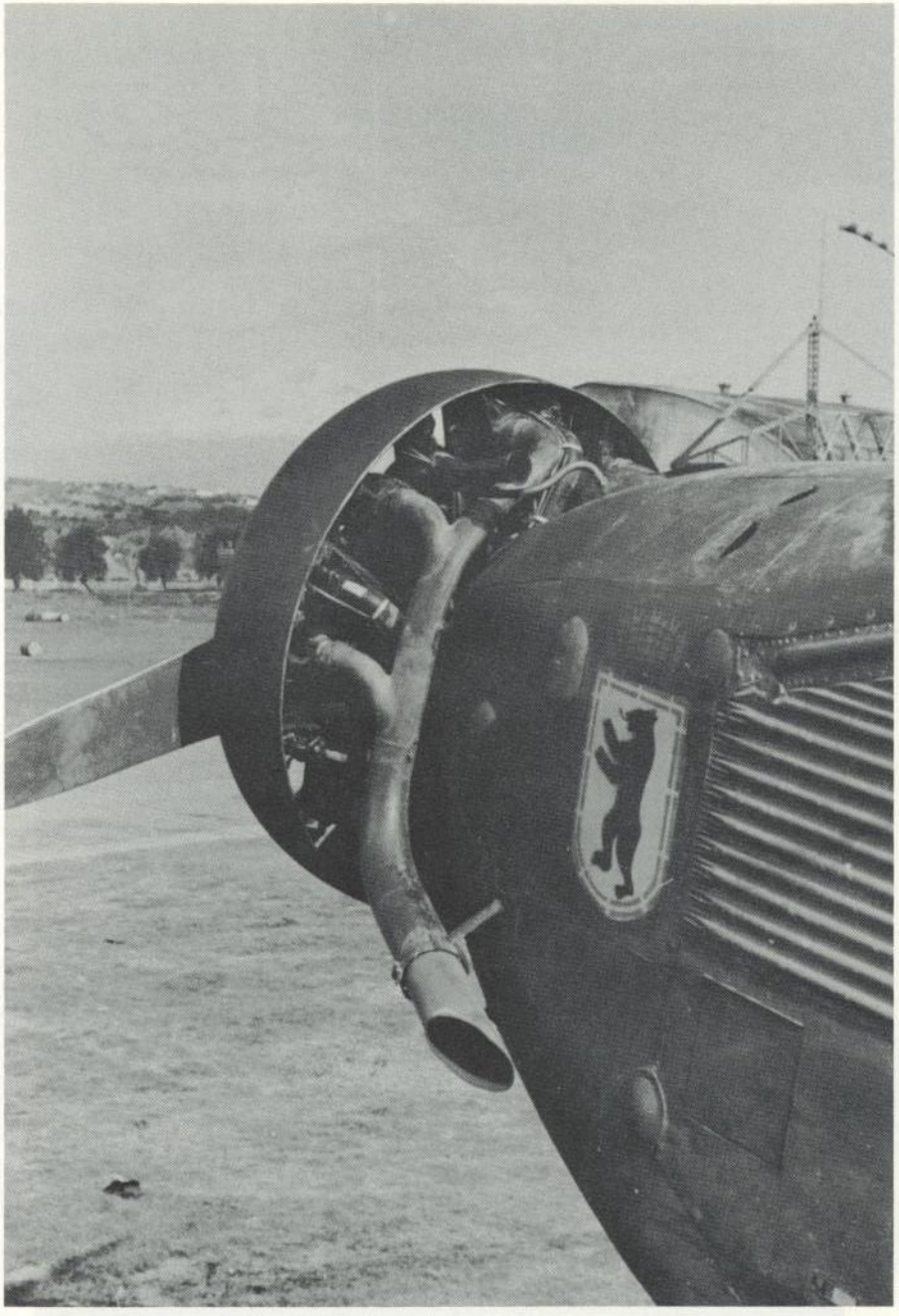


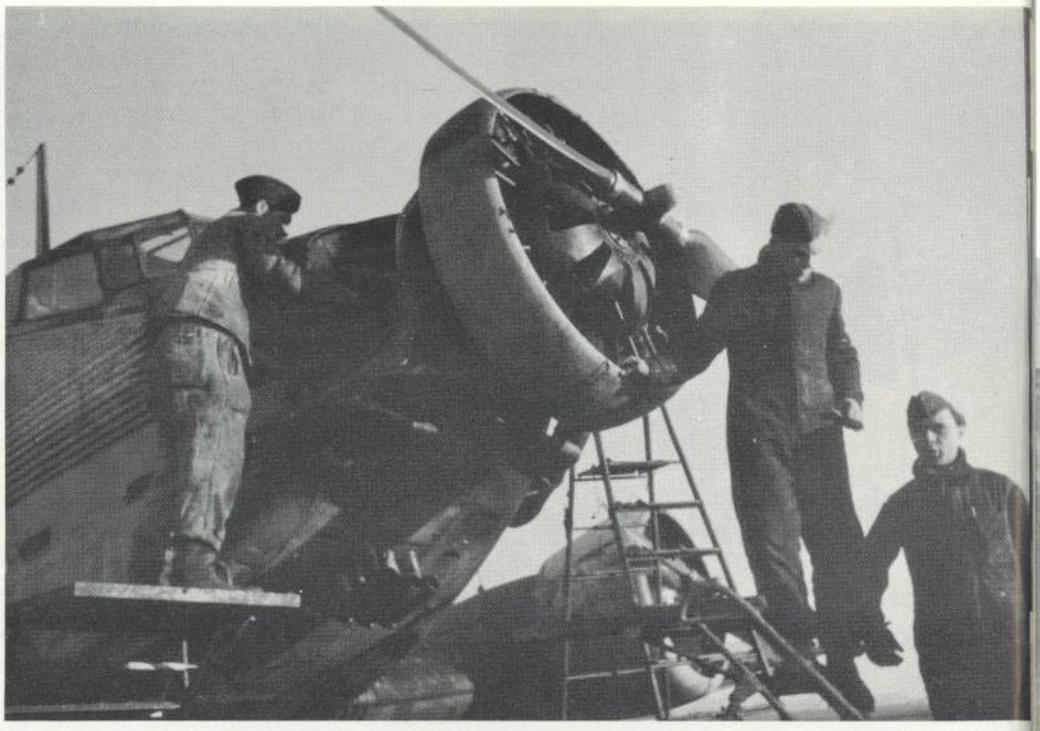
A **Ju 52** taxis out for a flight across the Mediterreanean Sea to Libya with supplies for Rommel's Afrika Korps. The aircraft, one of KGzbV1, bears her individual code letter "E" on the leading edge of either wing, an uncommon practice in the Luftwaffe.



Ground crewmen are carefully cleaning and maintaining the **7.9 mm MG15** defense armanent of the **Ju 52.**

AWARDS FOR OPERATIONAL FLIGHTS TRANSPORT

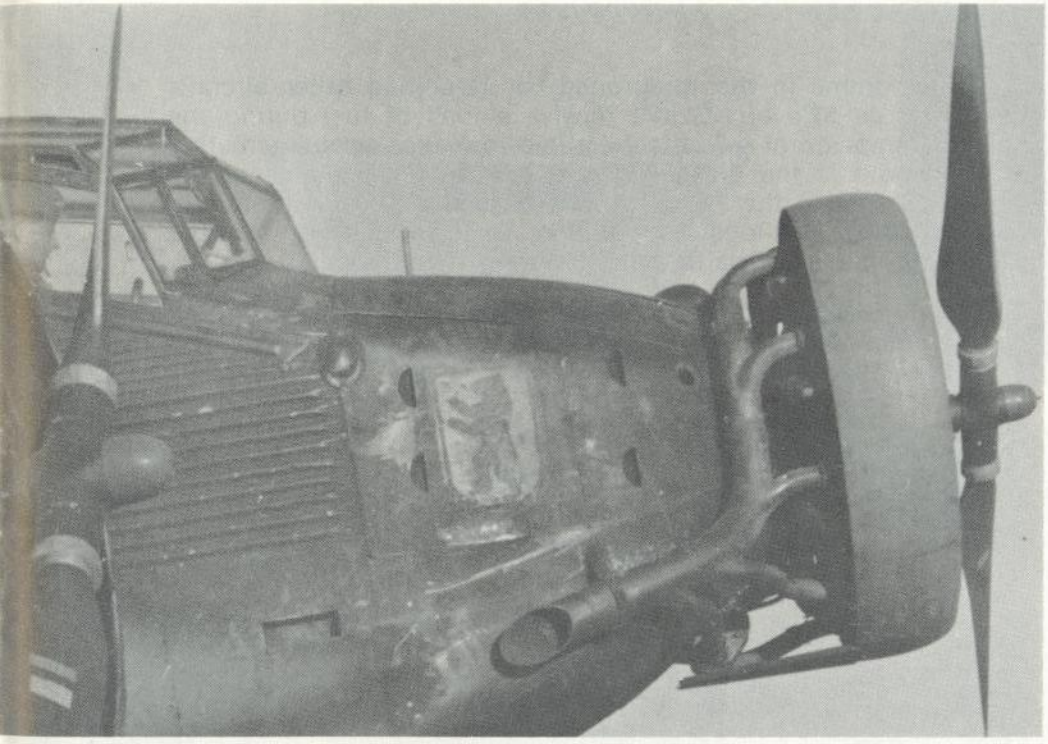




Standing on portable ladders and platforms, the Luftwaffe ground crewmen and mechanics wear clothing that is indicative of the sharp autumn winds that whip across the Russian steppes.

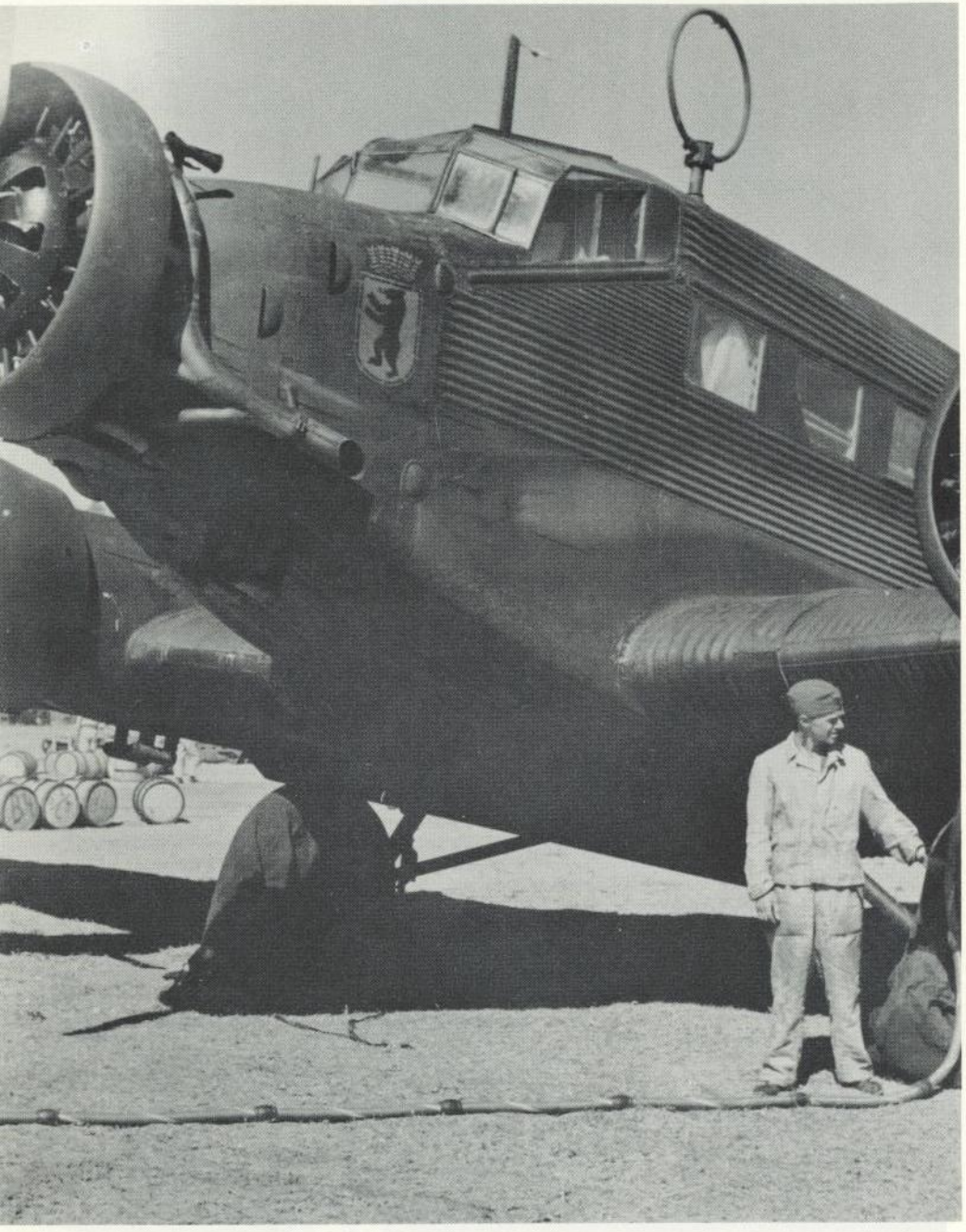
A close-up of the rear of the nose-mounted **BMW 132** engine and exhaust collector ring of a **Ju 52 of KGzbV1**. The BMW 132 engine was a rugged, steady power-plant that produced 725 horsepower and powered many of the non-combat aircraft in the Luftwaffe's inventory.

This **"Tante Ju"** of 10/KGzbV1 (note the red shield behind the standing bear of the unit insignia) gets a change of spark plugs. Observe the built-in footrests on the fuselage side on which the crewman at the far left is standing.



The **Ju 52s** of the Special Purpose Air Group No. 1 (KGzbV1) did Yeoman service in keeping Rommel's troops supplied.

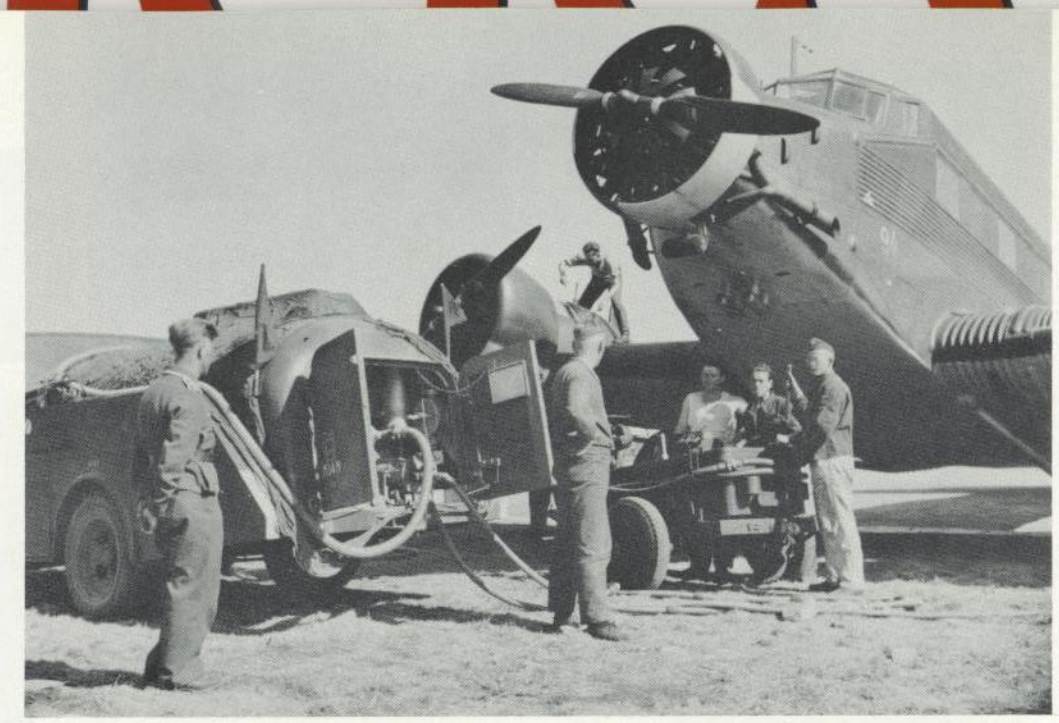
Another quick change of spark plugs on the engine of this **Ju 52** Here the Luftwaffe ground crewmen wear the more comfortable summer tropical uniform worn by servicemen the work over!



A Luftwaffe ground crewman supervises the refuelling of the port wing tank on this **Ju 52.** Note the fuel drums in the background ready to be loaded on to the aircraft as soon as it has had its gas tanks filled up.

With fuel drums in the foreground for refuelling other aircraft, these two **Ju 52's** of KGzbV1 receive a load of fuel during the Balkan Campaign at a Tactical Airfield in Yugoslavia. Interesting in this photo is the green and grey camouflage scheme of the aircraft closest to the camera, while both aircraft are fitted with yellow engine cowlings and rudders, an identification symbol carried by many Luftwaffe aircraft during this campaign.

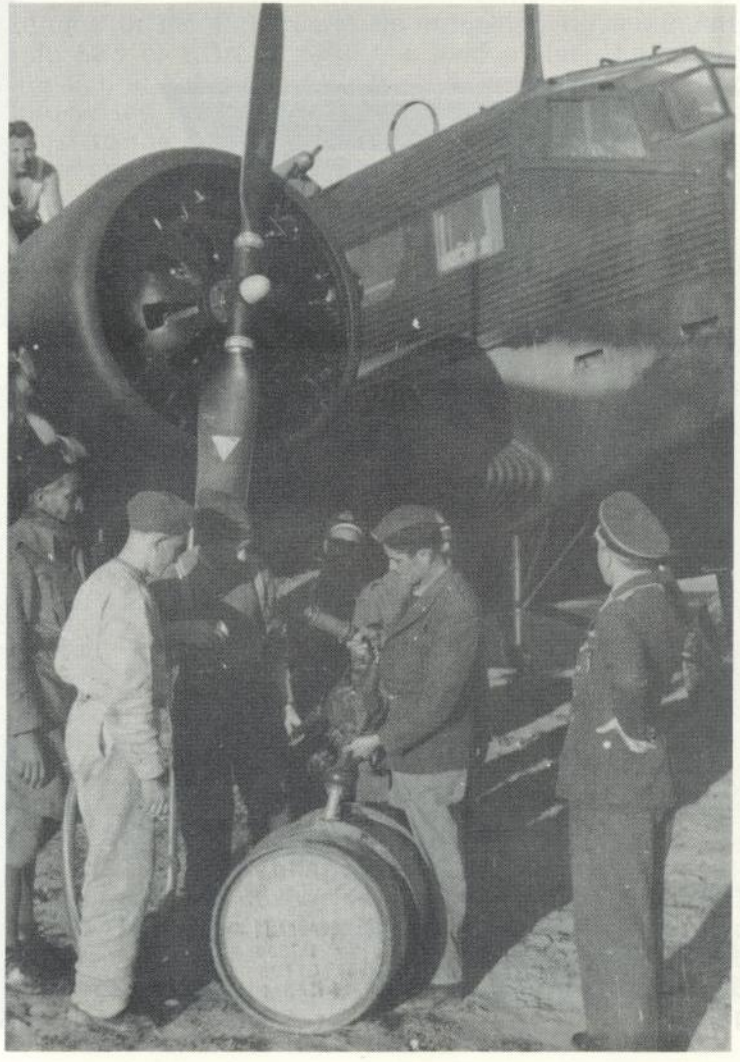
This **Ju 52/3** Transport gets a speedy refuel from the fuel truck in the foreground. The smaller wheeled device is an auxiliary-pump that allows the ground crew to pump fuel from the truck to the aircraft through two hoses, instead of only one.



LUFTDIENST
(Air Service)

The smoke from the fires in the background casts a pall over the landscape as Luftwaffe ground crew personnel hurry to refuel this **Ju 52** before another Soviet artillery barrage catches the aircraft on the ground.

FUEL FOR ROMMEL'S AFRIKA KORPS



As fuelling operations progress, personnel at the end of the runway prepare to load the waiting **Ju 52's** of Transportgeschwader 3 with the 250 KG General Purpose Bombs.

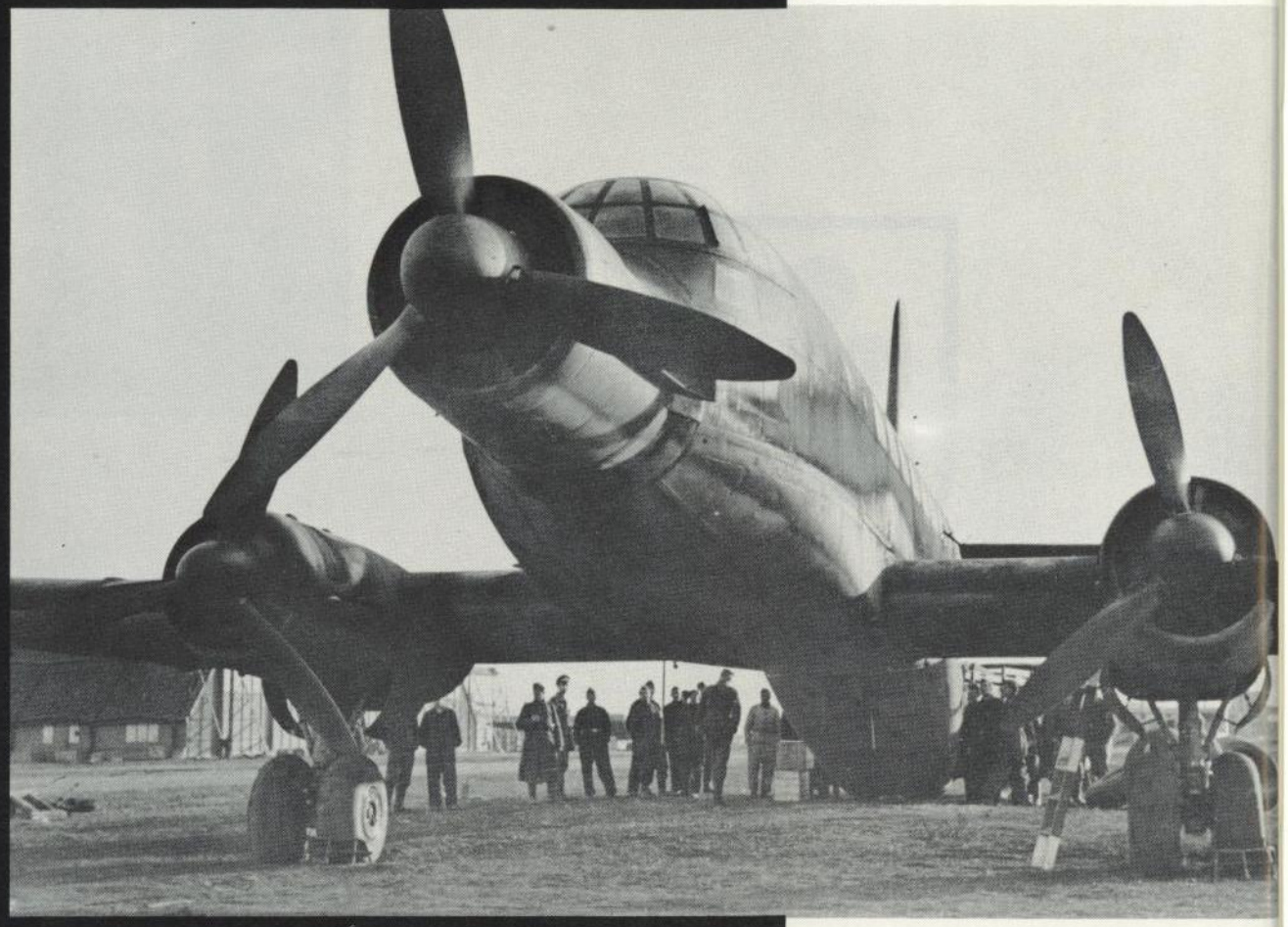
Empty long range **198 imp. gal.** external fuel tanks carried by **Bf 100's** are loaded on to waiting **Ju 52's** of KGzv1 during resupply operations over the Mediterranean during the Fall of 1942.

FLUGZEUGFUHRERSCHULE 8
WIENER NEUSTADT

The urgency of the resupply operations for the Afrika Korps is apparent in this photo as every means available to refuel these **Ju 52's** seems to be in use. Once again the aircraft are those of KGzbV1.

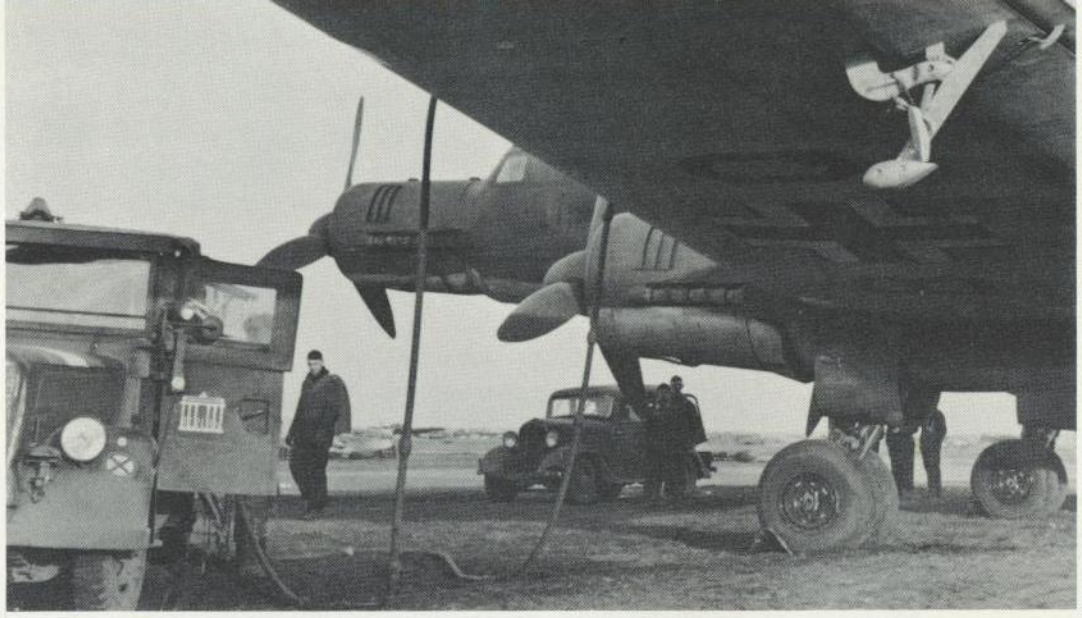
THE JUNKERS JU 252

The **Junkers** project officer in Dessau embarked in a series of design studies in 1938 for a successor to the **Ju 52** in order to widen the company's position in the international airline market. Closely following the Deutsche Lufthansa requirements, a 35 passenger aircraft with a greater range and retractable landing gear and a higher performance in general, the **Ju 252** was evolved.
The **Junkers Ju 252 V1** took off for her maiden flight in October 1941. Powered by three 1350 h.p. Junkers Jumo 211F 12 cyl. liquid cooled engines, the **Ju 252** could carry appr. 22,000 lb. of cargo.
Due to the increasing demands by the Luftwaffe, the Ju 252's were soon converted into transport planes by the installation of a Tarpoklappe (hydraulic powered loading ramp) in the tail section of the aircraft. Only a small number of Ju 252's were built performing as Transporter (cargo planes), mainly hauling bulky loads all over occupied Europe.



(Right) The **Junkers Ju 252** had a pressurized fuselage, calling for special provision for the installation of defensive armament. A single electrically operated **EDL 131** turret was fitted aft of the flight deck mounting **1 x 13 mm MG 131**, plus **2 x 7.9 mm MG 15** machine guns mounted in the fuselage side.

Filling the 2 x 198 gal. self-sealing wing tanks plus a 320 gal. self-sealing inboard tank of this **Ju 252 A-1,** an Opel-Blitz fuel truck pumps the B4 (87 octane) gasoline into the drained wing container.



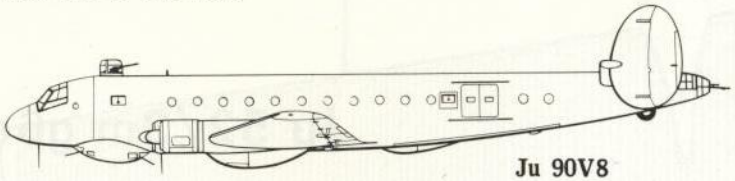
NARVIK

TG 4

While the **Ju 252 A-1** tanks are refilled, ground crews are busy loading the spacious fuselage at Berlin Tempelhof, January 1943. The overall dark green plane had a sky blue underside and a yellow band aft of the DF + BQ and belongs to the L.T. St. 290 (Lufttransportstaffel 290).

JUNKERS Ju 90

The ***Junkers Ju 90V8*** was powered by four 14 cylinder BMW 801 Ma engines with a rating of 1600 h.p. each Like the Ju 252, the ***Ju 290*** featured a loading ramp (Tarpoklappe) in the rear fuselage. The ramp was hydraulically powered and when lowered would raise the tail of the plane from the ground. The Ju 90V8 had defensive armament installed in a gondola in the fuselage nose, housing a 20mm MG 151. A hydraulically operated dorsal turret with a 20 mm MG 151 and a third 20 mm MG 151 in the tail.

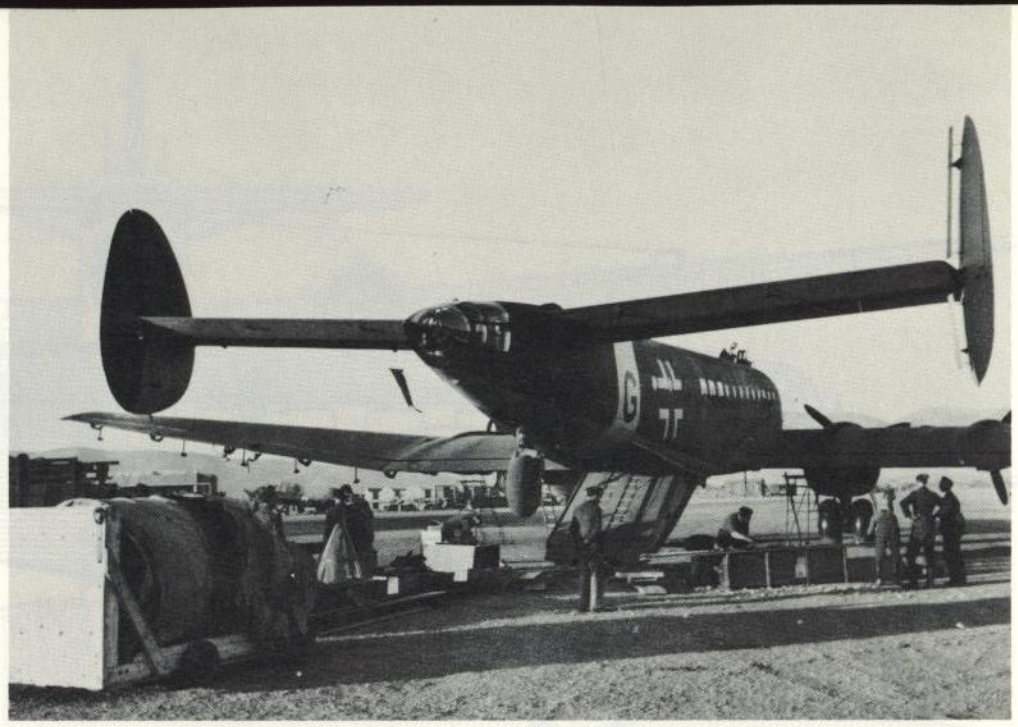


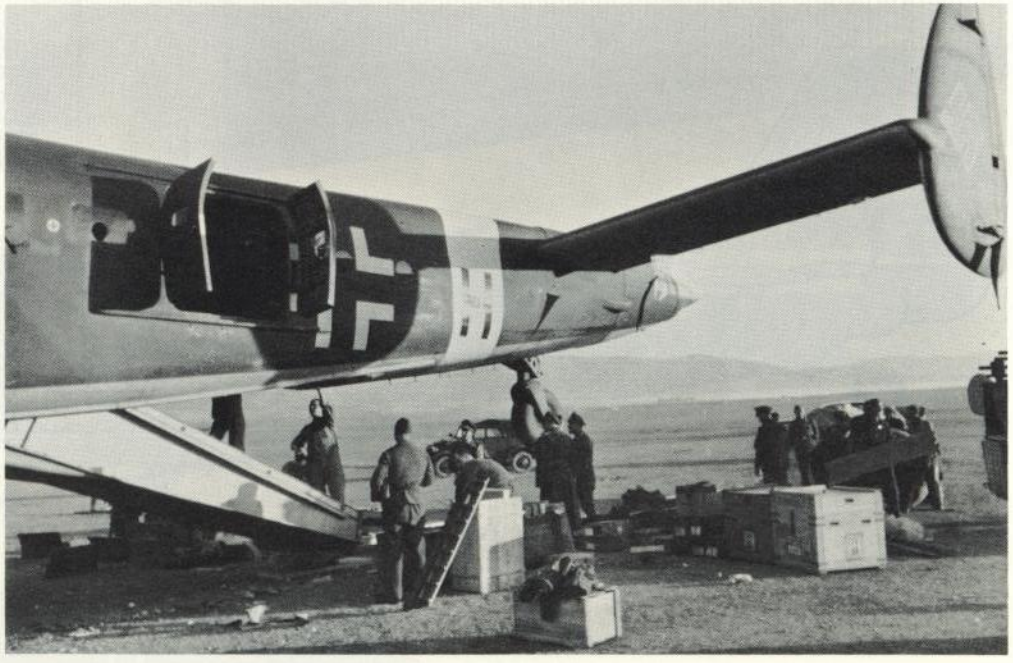
Ju 90V8

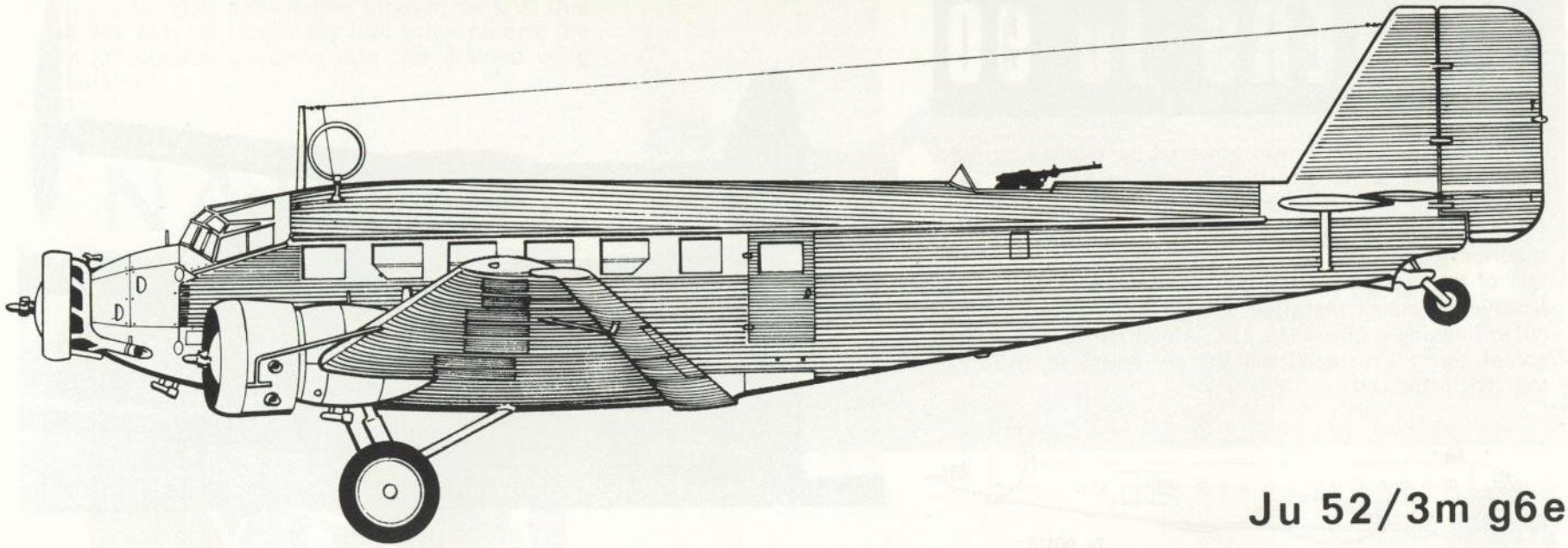
Vehicles up to the size of a VW Kubelwagen could be driven directly into the loading room of the Ju 90V8. The rear fuselage was loaded by means of the port hatch immediately in front of the Balkenkreuz.

Barely visible in the left hand of the picture is one of the two MG 131 mounted in the fuselage side.

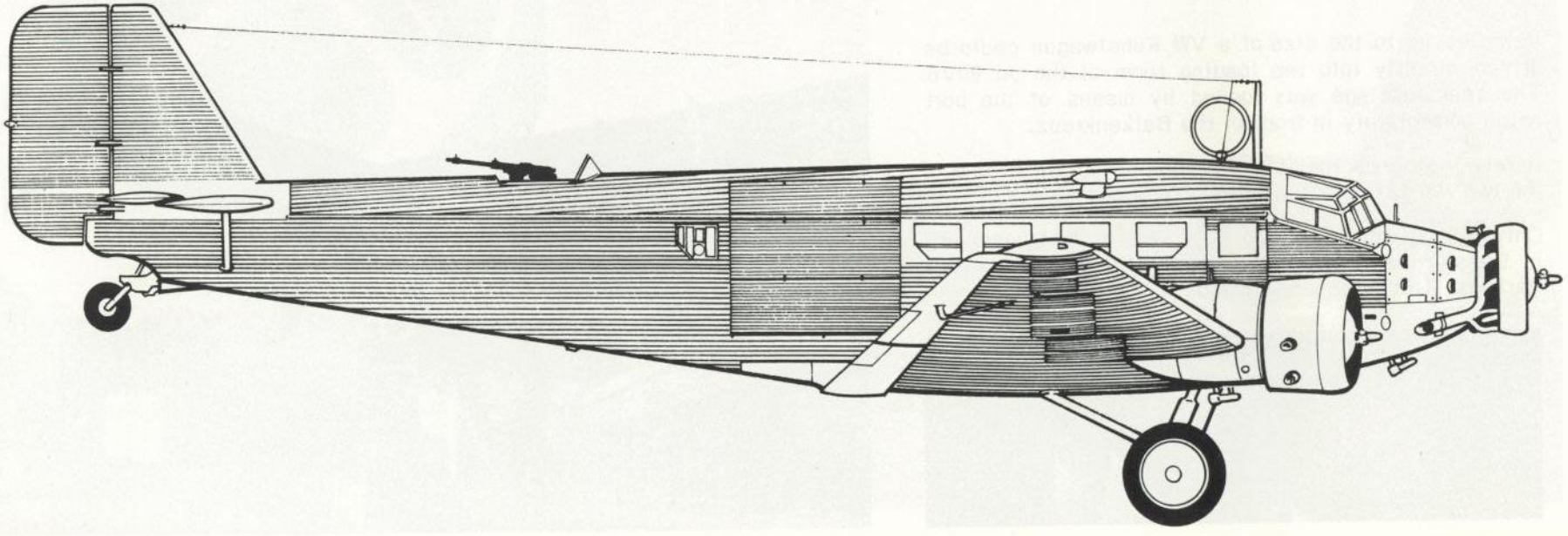
Only a small number of Ju 90's were built by Junkers in Dessau leading to the improved Ju 290 long-ranged Maritime Reconnaissance-Bomber.

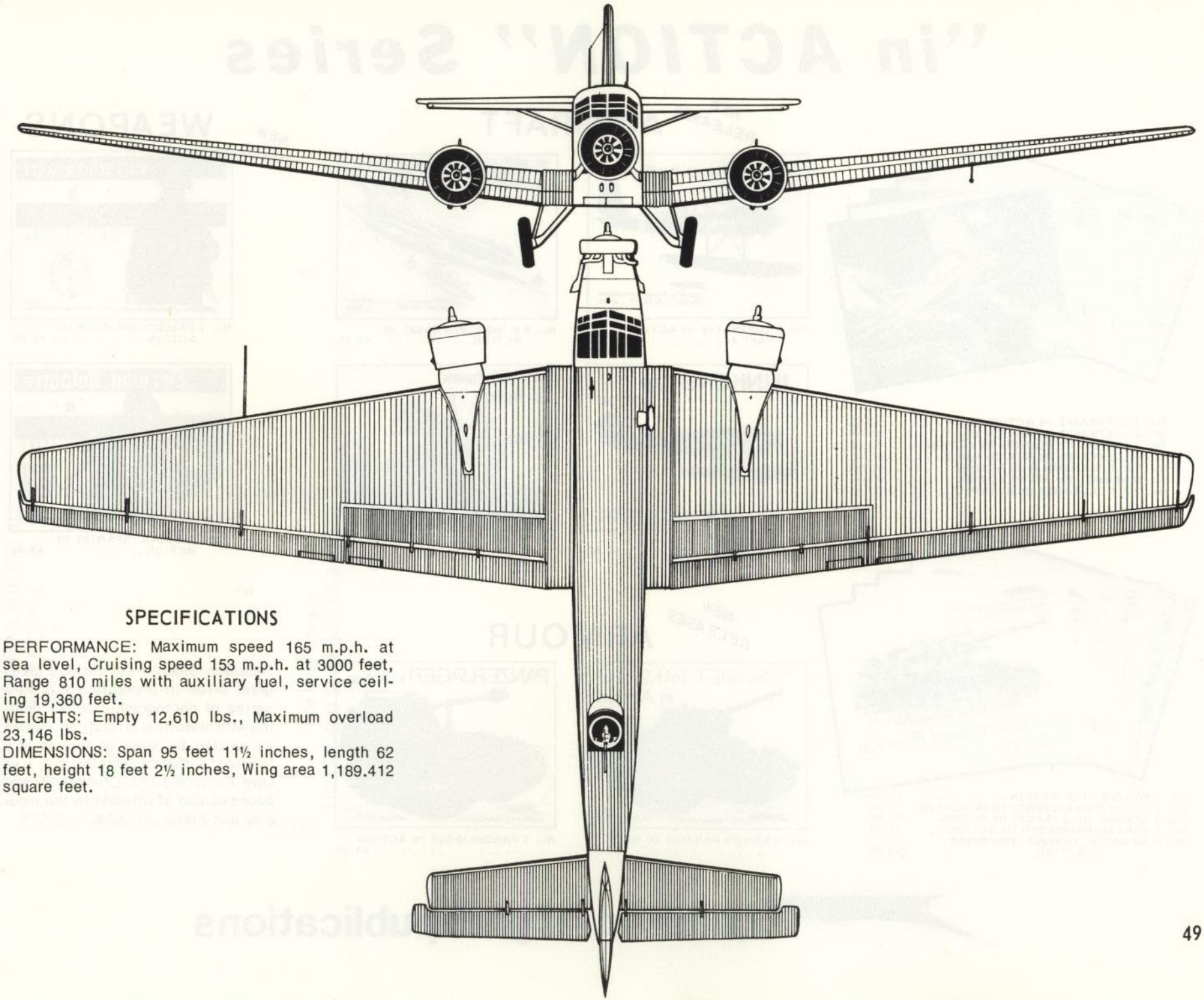






Ju 52/3m g6e





SPECIFICATIONS

PERFORMANCE: Maximum speed 165 m.p.h. at sea level, Cruising speed 153 m.p.h. at 3000 feet, Range 810 miles with auxiliary fuel, service ceiling 19,360 feet.

WEIGHTS: Empty 12,610 lbs., Maximum overload 23,146 lbs.

DIMENSIONS: Span 95 feet 11½ inches, length 62 feet, height 18 feet 2½ inches, Wing area 1,189.412 square feet.

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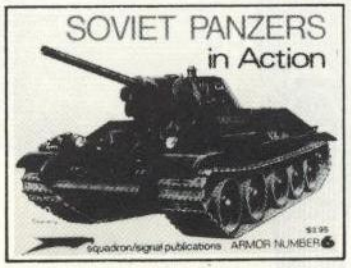

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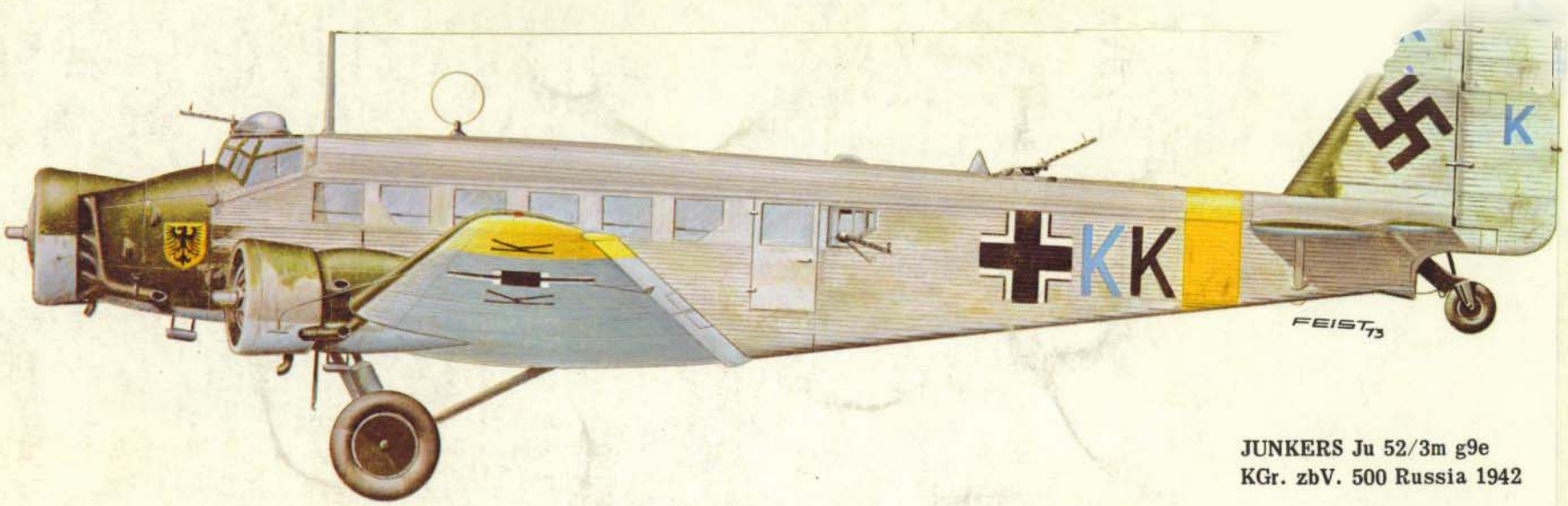

JUNKERS Ju 52/3m g9e
KGr. zbV. 500 Russia 1942

JUNKERS Ju 52/3m g4e
Ambulance aircraft, Germany 1938